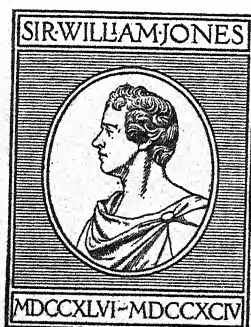


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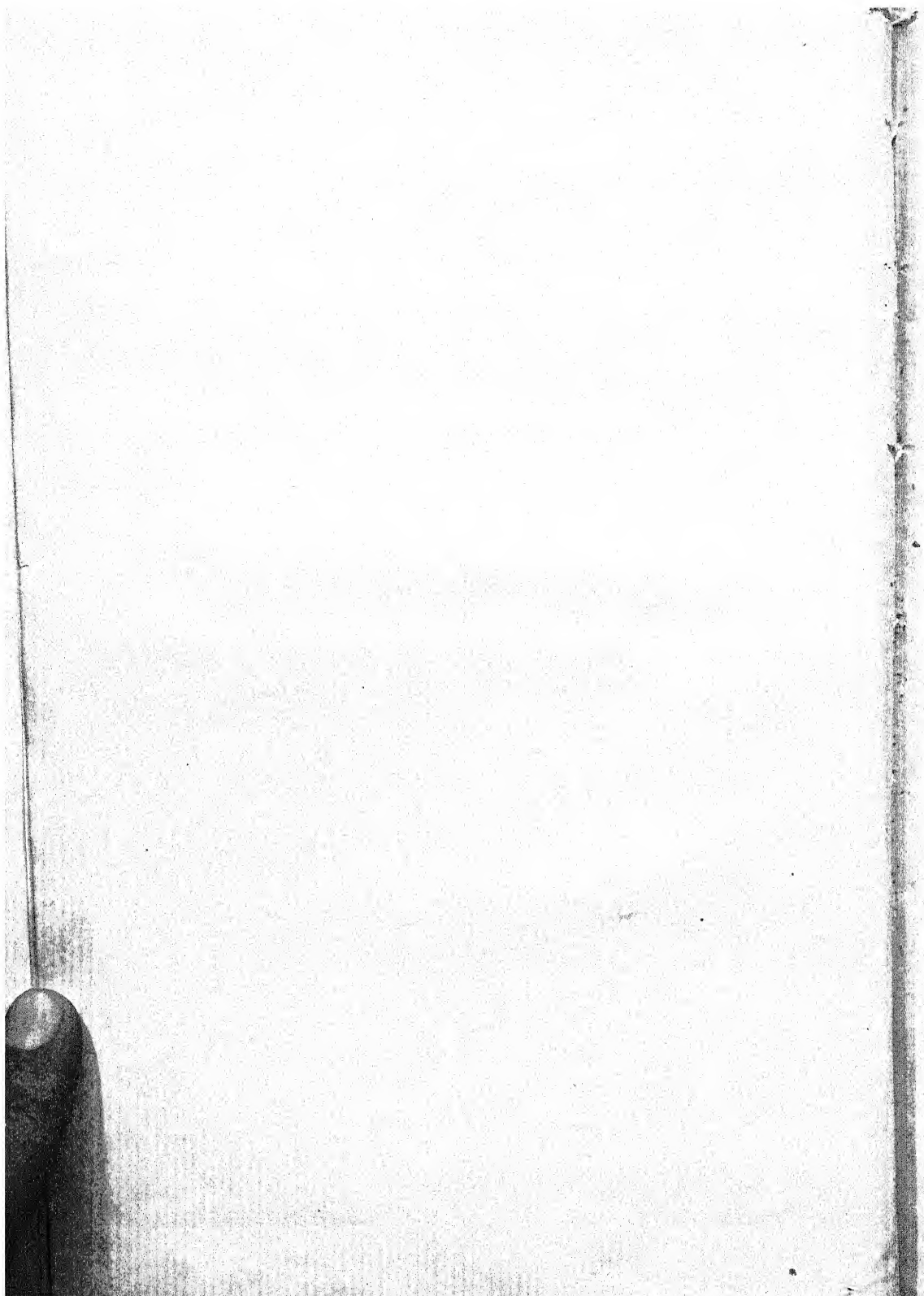
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The Life and Works of Amír Ḥasan Dihlaví.

By M. I. BORAH.

(Communicated by Dr. Baini Prashad.)

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I. THE LIFE OF ḤASAN.

Name and Parentage.—One of the most important Indo-Persian poets of the late seventh and early eighth centuries of the Hijra, whose works are read and admired even beyond the boundaries of India, is Amír Ḥasan Dihlaví. His full name is Amír Najm u'd-Dín Ḥasan Dihlaví, son of Khwāja 'Alá'u'd-Dín Sistání, often known as 'Alá'-i-Sanjari (?).¹ The poet adopted Ḥasan as his *Takhallus* or poetical name. As he was born and brought up at Dihli (Delhi) he is known as Ḥasan-i-Dihlaví. We know very little about his parentage except the fact mentioned by some biographers that he was born of a noble family of Delhi.² The members of this family, it seems, were immigrants to India from Sistán as the appellation Sistání added to his father's name indicates.

The title of Amír has been borne by two of the Indo-Persian poets, Ḥasan and his contemporary Khusraw. With regard to Khusraw we have historical evidence which says that the rank of Amír was conferred upon him by Sultan Jalál u'd-Dín Fírúz-Sháh Khaljí.³ But there is no such testimony either external or internal to show that Ḥasan was ever raised to such a position by any of the ruling princes or kings. Most of the historians and biographers say that he was a *nadím* or a courtier at the court of several kings and princes but none of them says that he was ever made an Amír. The biographers

¹ Baraní, p. 359; C.P.B., Vol. I, p. 196. Sanjari, I think, is an error of the copyists for Sijzi, i.e. an inhabitant of Sijistan or Sistán.

² K.A., Add. 18542, f. 65a; D.T.S., p. 247.

³ Firishta, Vol. I, p. 156.

further do not all use the title of Amír before his name. Some use the word Khvāja, some Shaykh and Mír,¹ and a small number Amír. But in the case of Khusraw, almost all the biographers regularly call him Amír. From this difference of treatment made by the biographers in the use of this appellation, and the absence of other evidence, we can reasonably say that the title of Amír was not officially conferred upon him. It was probably accorded to him by the people as a mark of respect generally shown towards the sons of the nobles and the Saiyids. Hasan belonged to a family of Saiyid, as we know from one of his odes where he addresses himself as Saiyid Ḥasan.² It is a custom in India to address the son of a Saiyid as 'Mír Šāhib' which is an abbreviation of Amír Šāhib. Therefore it is apparent that his designation of Amír was a mere dignity or a title of rank usually applied to the descendants of the Prophet.

The date of his birth and death.—Although the biographers are quite silent about the date of the birth of our poet, we have internal evidence at our disposal from which we can conclusively deduce the year in which he was born. In the preface to his *Diván* he says that he had completed its compilation when he was sixty-three years of age.³ But the date of the compilation, which is to be found only in the two existing prefaces attached to the copies of his *Diván* at the India Office and the Bankipore libraries, has been variously given. According to the India office copy it was completed on Sunday the twentieth of *Zí'l-Qa'da*, A.H. 715 (A.D. 1315),⁴ and the Bankipore copy gives the date as Sunday, *Rabí' I.*, A.H. 714 (A.D. 1314).⁵ Of these two dates the Bankipore date seems to be the more reliable. The poet says that this collection was completed during the reign of 'Alá' u'd-Dín Khaljí who was of the same age as himself.⁶ 'Alá' u'd-Dín died on the eighth of *Shawwál*, A.H. 715 (A.D. 1315).⁷ The date assigned to the compilation of the *Diván* in the India Office library copy would show that it was completed one month after the death of 'Alá' u'd-Dín, whereas the poet says that it was already complete during the Sultan's lifetime. Consequently we can accept the Bankipore date as authentic, and thus place the date of the poet's birth in the year A.H. 651 (A.D. 1253), during the reign of Sultan Násir u'd-Dín Mahmúd.

All the biographers, except Taqí Káshí, agree that the poet died at Deogir or Dawlatábád. But Taqí Káshí says that he

¹ Badáúní, Vol. I, p. 201. The *Majma'* calls him a Shaykh, probably in the sense of a pious man, not as a class as understood in India.

² D.H., I.O.L., f. 108 (b).

³ *Ibid.*, f. 1a.

⁴ *Ibid.*, f. 2b.

⁵ C.P.B., p. 197.

⁶ D.H., I.O.L., f. 1.

⁷ B.N., Add. 21,104, f. 383.—

تاریخ هر دو شاه ز شوال دو چهار تاریخ عام پانزده هفتصد از شمار

died at Delhi, twenty years after the death of Amír Khusrav and that he was buried at the foot of the tomb of his spiritual guide Nizám u'd-Dín Awliyá.¹ But no other writer corroborates his statement. If his tomb had been at Delhi, it would immediately have attracted popular reverence and have become a place of pilgrimage as is the case with the tombs of Shaykh Nizám-u'd-Dín Awliyá and Amír Khusrav. Badáúni on the other hand definitely says that he died at Dawlatábád 'where his tomb is well known and is visited as a sacred shrine'.²

The statement of Badáúni has been corroborated by the *Mir'át-u'l-Abrár*, a biography of saints written in the eleventh century A.H., which says³:—

'He was buried at Deogír or Dawlatábád, near the sepulchre of Shaykh Burhán u'd-Dín Gharib.⁴ His tomb is a place of pilgrimage to the people of that country, who call him Ḥasan Shir or Ḥasan the Lion, because no one can stay near his tomb at night. If any one, through ignorance and foolishness, stays for a night at his grave, he sees the vision of a lion and falls into a swoon.' We can therefore take the statement of Badáúni as correct and accept Dawlatábád as the place of his death and burial.

We have no conclusive evidence as to the exact date of his death. The dates given by the biographers vary from A.H. 707 to A.H. 769, (A.D. 1307-67). I shall therefore, first of all, give the dates which have been assigned by different writers and then try to ascertain, as closely as possible, what the correct date is. The following dates have been given by the under-mentioned authorities:

Mírzá Bídil gives the following chronogram:

حسن دهلوی بمزوع دهر تخم نیکی و نیکنامی کشت
هاتف بانگ زد ای سائل (؟) سال تاریخ فوت اوست بهشت

'Hasan Dihlaví in the meadow of the world,
Sowed the seed of goodness and fame;
The invisible speaker cried aloud, "O, enquirer !"
The date of his death is (*Bihisht*) Paradise.'

The numerical value of the letters B.H.Sh.T. of the word *Bihisht* = 2+5+300+400 = 707 = A.D. 1307.⁵

¹ K.A.Z.A., I.O.L., No. 667, f. 541a.

² Badáúni, Vol. I, p. 201.

³ M.A., Or. 1756, f. 144.

⁴ Shaykh Burhán u'd-Dín Gharib was one of the devoted disciples of Shaykh Nizám u'd-Dín. He was deputed by his spiritual guide to preach Islam at Burhánpúr and Dawlatábád. S.A., Or. 224, f. 91.

⁵ *Bayáz*, Add. 16, 803, f. 435.

Mir'at u'l-Khayál,¹ A.H. 707 = A.D. 1307.

Kalimát u'sh-shu'arâ,² A.H. 707 = A.D. 1307.

³ *Khulâsat u'l-Afkâr*, A.H. 738 = A.D. 1337.

⁴ Taqî-Kâshî, A.H. 745 = A.D. 1344.

⁵ *Tazkira-i-Husaynî*, A.H. 769 = A.D. 1367.

Badâ'ûnî⁶ and Firishta⁷ say that he died at Dawlatâbâd in the year of the transfer of the capital by Muhammad Tughlaq from Delhi to Dawlatâbâd.

We cannot accept the year 707 A.H. as the date of his death. This was the year when he commenced the writing of his prose book known as *Favâ'id-u'l-Fu'ad*, in the completion of which he spent fifteen years, from A.H. 707 to 722.⁸ This was the most fruitful and active period of his life, during which he also compiled his *Divân*.⁹ We are therefore quite certain that he lived until A.H. 722 (A.D. 1322). We have also evidence that he survived his spiritual guide Nizâm u'd-Dîn Awliyâ and his contemporary Amîr Khusraw, and he is said to have written a chronogram giving the date of Khusraw's death.¹⁰ Amîr Khusraw died in A.H. 725 (A.D. 1325). It is therefore evident that Hasan died some time after this year. The other dates given by the biographers are not corroborated either by direct or circumstantial evidence. Therefore, in the absence of any conclusive evidence, we can rely on the statement of Badâ'ûnî and Firishta which seems to be the most probable and place the date of his death some time after the transfer of the Indian capital from Delhi to Deogîr or Dawlatâbâd.

The transference of the capital from Delhi to Dawlatâbâd by Sultan Muhammad Tughlaq was actuated not by his peculiar whims or caprices as some historians believe, but by a sincere desire to make the centre of his dominion in a more central place, from which he could reign with greater ease and vigilance.¹¹ With this end in view he took this step after the rebellion of Gurshâsp, the governor of the principality of Sâgar in the Deccan.¹² This rebellion occurred in A.H. 727 (A.D. 1327),¹³

¹ Or. 231, f. 35.

² Or. 470, f. 155. This MS. reads as 807, but I think it is the copyist's error who wrote eight instead of seven.

³ Add. 18, 542, f. 65.

⁴ I.O.L., No. 667, f. 541.

⁵ Or. 229, f. 37.

⁶ Vol. I, p. 201.

⁷ Vol. I, p. 262.

⁸ Or. 1806, f. 132.

⁹ D.H., I.O.L., No. 1223, f. 25.

¹⁰ My.K., Or. 3537, f. 141.

¹¹ Baranî, p. 473; Firishta, Vol. I, p. 242.

¹² Firishta, Vol. I, p. 241. Badâ'ûnî calls him the Inspector-General of the forces.

¹³ Badâ'ûnî, Vol. I, p. 226; Firishta has not given the date of this rebellion and the transference of the capital from Delhi to Deogîr. He

and this is the year when the Sultan decreed the transference of the capital. The royal decree had compelled the officers of the court and all those connected with the business of the State to move immediately to the new Capital; but the people were left to their own will, although encouragement was given and persuasion was attempted and various facilities were provided for their voluntary transfer.¹ But two years after this decree, i.e. in A.H. 729 (A.D. 1328) when the Sultan was returning from his war against Tarmashírín,² the Mongol invader of India, he ordered the transference of the entire population of Delhi to Dawlatábád.³ This second decree was issued more as a punitive than as an administrative measure. According to Ibn Batúta, the Sultan took this vindictive step as a measure against some of the inhabitants of Delhi who wrote anonymous letters reproaching him for the removal of the court.⁴ The indiscreet act of a few made the entire population of Delhi suffer the awful consequences of this monstrous decree. It was probably during this year that Ḥasan migrated to Dawlatábád. He would not have left Delhi, his birthplace and the shrine of his spiritual guide Nizám u'd-Dín Awliyá unless he had been forced to do so; his death followed in the same year, probably hastened by his inability to withstand the climate of the Deccan at such an advanced age.

His childhood and youth.—Of the childhood and early education of our poet very little is known beyond the fact that he began to compose poetry from the age of thirteen, which we know from an incidental reference in his prose preface attached to the *Díván*.⁵ Nothing has ever been said as to whether he was put under any tutor for his education and training. He makes, of course, occasional references in his *Díván*, to his indebtedness to the great Persian poets Sa'dí and Shaykh Abú-Sa'íd in whose footsteps he followed.⁶ But there was no opportunity for him

gives in detail the causes of the transfer of the capital and narrates the whole history abruptly after his account of the Sultan's expedition to Himáchal which was led in A.H. 738 (A.D. 1337-38). This has led Briggs in his *Mahommedan Power in India* to suppose A.H. 738 to be the date of the transfer of the capital from Delhi. But the text does not show any chronological relation of the one with the other. The Himáchal expedition was led eleven years after the transfer of the capital (*vide* Badáúní, Vol. I, p. 229).

¹ Badáúní, Vol. I, p. 226.

² Identified with the Chaghatá'i, 'Alá'u'd-Dín-Tarmashírín who reigned in Transoxiana from 1322-1330 or 34; *vide* C.H.I., Vol. III, p. 143.

³ Badáúní, Vol. I, p. 228; Firishta also mentions of this second decree; (Vol. I, p. 243). Baraní gives no date of this important event.

⁴ Ibn Batúta, Vol. II, p. 71.

⁵ D.H., I.O.L., f. 1.

در سیزده سالگی... نظمی از کوره تفکر حاصل می آمد

⁶ *Ibid.*, ff. 75a, 107a, 137b.

to meet either of them. It seems, therefore, he must have received a sound education at home, as was the custom among the noble families of those days; and with this to start with, he must have devoted himself to the study of great minds, and thus developed the poetic genius which was innate in him.

We find Ḥasan in the prime of his youth working in a baker's shop, where Amīr Khusraw, his contemporary, first met him. The amiable nature and elegant disposition, which he displayed in a short conversation with Khusraw, led to the growth of their mutual admiration and friendship. It was on the same day that he was introduced to Shaykh Nizām u'd-Dīn Awliyā, the greatest saint of his time. The occasion of this meeting is described in the following way¹:—

'One day Shaykh Nizām u'd-Dīn Awliyā was passing through the market-place with some of his companions, among whom was Amīr Khusraw then in the prime of his youth. Khvāja Ḥasan, the poet, who was extremely handsome and a perfect master of excellence, was sitting at the counter of a baker's shop. When Amīr Khusraw saw him he found him to be a person of elegant, graceful and attractive nature. He became enamoured of him and he went to the shop and asked him, "How do you sell your bread?" Ḥasan replied, "I put the bread on one scale of the balance and ask the customer to put his money on the other, when the money overweighs, I allow the customer to go". Amīr Khusraw said, "If the customer has no money what would you do?" He replied, "I accept his grief and supplication in place of gold". Amīr Khusraw became astonished at this reply of Ḥasan. Then he reported the matter to the Shaykh. Khvāja Ḥasan, also being enamoured of him, left his business on that very day. Although he had not become a disciple of the Shaykh at that time, he began to frequent his monastery and busied himself in the acquisition of knowledge.' From this time, as the story goes, there developed a great friendship between Khusraw and Ḥasan.

Earliest Association with Royal Courts.—The exact date and occasion of his entry into the royal court is not known. The only reference we come across is in the *Favā'id u'l-Fu'ād*,² where he says that he accompanied Sultān Ghiyās u'd-Dīn Balban in his campaign against Tughril the rebellious Governor of Bengal at Lakhnawtī. This rebellion was made in A.H. 673³ (A.D. 1279), so it appears that he came into contact with the court some time before this.

¹ Firishta, Vol. II, p. 754.

² Or. 1806, f. 69a. He says that in this campaign he passed all his days with Shams-i-Dabīr, the Secretary of Bughra Khān, the Governor of Bengal after Tughrul.

³ Firishta, Vol. I, p. 138.

He did not stay long at Lakhnawtí. He returned to Delhi with the King, and in A.H. 679 (A.D. 1280) he was invited by prince Muḥammad Sulṭán, the eldest son of Balban, to his court at Multán.¹ This prince held Amír Ḥasan and his contemporary Khusraw in very high esteem and conferred upon them the offices of the *Davát-Dár*² and *Maṣḥaf-Dár*,³ respectively, and included them in the circle of his boon companions. Both these poets were in his service for a period of about five years till his death in A.H. 684 (A.D. 1285)⁴ in a battle fought against the Mongol horde under the command of Aitimúr Khán.

Prince Muḥammad, known as Qá'án Malik or Khán-i-Shahíd,⁵ was a great patron of letters. The profuse generosity which he showed towards the men of learning and the encouragement which he gave to the advancement of knowledge made him very popular among his subjects and attracted men of letters to his court. In his zeal for fame he twice sent for Sa'dí of Shíráz to come to Multán. On both of these occasions he sent to the poet the expenses of the journey and promised to build a monastery for him and devote the revenue from several villages to its maintenance. But Sa'dí refused this offer, and excused his inability to comply with the request on account of his old age and sent to the prince some *Ghazals* written in his own hand.⁶ It is said that the prince himself prepared a *Bayáz*, or anthology, containing twenty thousand selected couplets from the works of the best Persian poets, which has been highly praised by Ḥasan and Khusraw as an excellent specimen of judicious selection. After the death of the prince it was given by Balban to Amír 'Alí Jáma-dár, who in turn bequeathed it to Amír Khusraw.⁷

A very interesting account of the Court and character of Prince Muḥammad, with special reference to his benevolent treatment of Amír Ḥasan and other men of letters has been given by Ziyá Baraní. He says⁸ :—

'The court of Muḥammad Sultan was full of men of talent and profound scholars. His *nadíms* or boon companions used

¹ Badáúní, Vol. I, p. 130.

² 'The Keeper of the Royal Inkstand', a rank of high honour.

³ 'The Keeper of the Imperial *Qur'án*', a rank of high honour.

⁴ Baraní, p. 109. The *Ḥabíbu's-Siyar* is wrong in stating that they served the prince for a period of three years only. (*Vide* Add. 1725, f. 104.)

⁵ Qá'án Malik is the title given to him by Balban on the occasion of his appointment to the governorship of Multán. (*Vide* Baraní, p. 66.) He is known as Khán-i-Shahíd or 'the martyr prince' after his death in the battle fought against the Mongols.

⁶ Baraní, p. 68. Dawlat-Sháh is wrong in stating that Sa'dí came to India to see Khusraw (T.D.S., p. 239).

⁷ Firishta, Vol. I, p. 137.

⁸ Baraní, pp. 66-7.

to recite the *Diváns* of Saná'í and Kháqání, and the merits of the poems of these writers were discussed before him by the wise men of his court. Amír Hasan and Amír Khusraw were in his service for a period of five years at Multán and used to receive gifts and allowances from him as courtiers. The wisdom, which this prince possessed, had led him on various occasions to recognize the merits and talents of these two poets. He held them in higher esteem than any of his courtiers. He was so pleased with their prose and verse that he made both of them his intimate associates, and he used to show greater favour and bestow more gifts and robes of honour on them than on any of his *nadíms*. And I, the author of the *Ta'rikh-i-Firúz-Sháhí*, have often heard about Khán-i-Shahíd from Amír Khusraw and Amír Hasan, that a prince so polite and courteous was seldom to be found among the princes. If he was required to sit on the government-seat for the whole of the day and night, he would not deviate an inch from the formalities of decorum. We never saw him in a cross-legged position. We never heard him uttering any obscene or rude words either at drinking parties or in other assemblies. He drank so moderately that he would never get intoxicated or lose his senses.....' The same historian remarks in another place that he had very often heard Amír Hasan and Khusraw saying, 'Had we and other scholars been fortunate enough, then the Khán-i-Shahíd would have lived and ascended the throne of Balban. He would have drowned all the scholars and artists of the age in gold; but we artists have no luck and Fate does not look on us with the eye of Justice.'¹

These are the glowing tributes paid to the prince by the contemporary historian and the poets of his court. His death was a severe blow not only to the old King Balban, who held him as dear as his life, but also to the development of Indo-Persian literature. His succession to the throne of Delhi would have created a healthy intellectual atmosphere in the court and opened a new era of culture and learning. His death was mourned equally by the court and the people.² Amír Khusraw wrote two elegies describing the events of his death which were taken up by the common people who 'for about a month used to chant them as threnodies over their dead from house to house'.³ On this occasion Hasan wrote in prose the following *Marsiya* (a lament), which gives not only a vivid description of the battle the prince fought, but also of the deep affection and loyalty the poet bore towards him.

¹ Baraní, pp. 68-9.

² Baraní, p. 109.

³ Badáúní, Vol. I, p. 137.

*The Margiya*¹.—‘It is an old story that although the tyrannous sky ties for a while the knot of concord and makes the covenant of mutual friendship, it turns away; and although the discordant time adopts the path of concord for a while and makes the covenant of fidelity yet it breaks away. The impudent sky, whose pupil of manliness is vitiated by the mote of meanness, although like a drunken man, bestows a gift without any idea of generosity, yet at the end takes it back like children, without any betrayal of dishonest conduct. The customs and usages of the oppressive time are of this nature. Whether by experience or by rumour we see and hear, whoever it sees rising like the moon, it desires to blacken his perfect face with the mark of injury. Whoever it sees rising like a cloud, it strives to shatter its substance into pieces on the horizon. In this garden of grief and this orchard of amazement, as no rose is without a thorn, so no heart is free from the thorn of anguish. Alas! for many a newly sprung verdure that has been turned pale by the calamity of the wind of autumn. Alas! for many a newly sprung plant that has been laid low on the ground by the hurricane of time.....’

‘One of the instances of this parable is the death of the late prince Qá‘án-Malik Ghází on Friday, the last day of the month of *Zí‘l-Hijja* 683, A.H. (A.D. 1285)² when the moon like kindness in the heart of an infidel was nowhere visible, the sun in the company of the army of Islam appeared with its striking sword. The great prince, who was the sun of the heaven of the kingdom, with the light of holy war shining on his forehead and with a strong determination for the holy war firmly fixed in his enlightened mind placed his auspicious feet in the stirrups.

‘It was represented to his judgment, the solver of all difficulties, that Áitimúr³ had arrived with his whole army at a

¹ The earliest authority where this *Margiya* is to be found is the *Ta‘ríkh-i-Mubárak-Sháhi* (Or. 1673, ff. 354–58). Of the later historians, Nizám u‘d-Dín and Badáúní also reproduce it. It seems their authority is the T.M.S., cf. also Ranking’s translation of this *Margiya* in his *Badáúní*, Vol. I. I have pointed out in my footnotes where I have differed from Ranking’s interpretation.

² Baraní says this battle was fought in A.H. 684 (*vide* p. 109). Khusraw in his elegy says ‘the battle was fought on Friday, the last day of the month of *Zí‘l-Hijja*, the end of the year 683 and beginning of 684.

جمعه بود و سلخ ذی حجه که بود آن کارزار آخر هشتاد و سه آغاز هشتاد و چهار
Khusraw and Ḥasan give us the exact date of this battle whereas Baraní puts simply the year. The correct date of this battle is Friday, the 29th of *Zí‘l-Hijja*, A.H. 683 = 8th March, A.D. 1285. Prof. Ḥabíb is wrong in assigning the date of this battle to a hot April day in A.H. 687 (*vide* his *Amír Khusraw*, pp. 15–20). The *Tabaqát-i-Akbari* says the battle was fought on the third of *Zí‘l-Hijja*, probably it is due to the copyist’s error who transcribed the word سلخ as سوم (*vide* T.A., p. 98).

³ The name of the Mongol General.

distance of three *farsangs*. At daybreak he ordered his army to march from that place, and having faced the infidels at a distance of one *farsang* from them he selected the place of battle on the bank of the river Laháur (Lahore) on the outskirts of Bágh-i-Sabz. As there was a large marsh¹ adjoining the river, he fortified the place very strongly and arranged that when the infidels should advance both the waters would be in the rear of the army so that neither would his soldiers be able to fly from the battle nor could any mishap arise through the enemies on the rear of his army.

'In truth, that precaution was due to the extreme vigilance and skill of that world-conquering Khán. But when evil luck befalleth, the string of all affairs gets loose and the thread of all arrangements becomes disorganized.....

'It happened that on that day the moon and the sun, who bear close resemblance to Kings, were suspended in the sign of the Fish. Mars, whose red face is due to the blood of the nobles of the state, has drawn the arrow of meanness and the dart of insolence from the quiver of that zone against the Orion-girdled Khán who was like Leo in the zone of the watery house of bloodshed and destruction, and the proofs of mischiefs and disorders were evident, and the command and significance of the verse, "When Fate comes the plain becomes narrow", became impressed in the pages of record.

'In short, it was midday, when the horseman of the sky had reached the region of noon and that world illuminating

¹ There are different readings as to the name of this place. According to Badáúni it is a big village adjoining the river (متصل آب دیہی بزرگ بود) Vol. I, p. 132). The *Ta'rikh-i-Mubárah-Sháhi* reads as متصل آب دھندی بزرگ بود (or 1673, f. 355). The *Tabaqát-i-Akbari* reads as متصل آب دھندی بزرگ بود (Add. 6543, f. 44). If we accept Badáúni's text we cannot explain the significance of the two sheets of water mentioned in the next line which formed the rear of the army. Ranking explains the term آب دو (Dúáb) as the rivers Rávi and Satlaj. But these two rivers are so far apart from each other that it was not possible to utilize them as a strategic defence in this particular area. So if we take Dúáb in its literal sense, the sense becomes more clear. I prefer the texts of the other two histories and read the word as دھند (*Dhand*) meaning a 'swamp'. The word *Dhandh* in the Panjábí language means a lake, a depression in the ground that fills with water in the rainy seasons, etc. Here I think the author has used this word in the sense of a marsh and the *Tabaqát-i-Akbari* explains the term by adding the Persian word کولاب (*Kúláb* = pond or reservoir) after the word *Dhand*.

king was on his wane, suddenly a dust¹ arose from the side of the infidels. The Khán-i-Ghází immediately rode on his horse and gave orders that the entire army with its rank and file, according to the verse "Kill the polythists, all of them" formed in a line a hundred times stronger than the wall of Alexander.² After arranging the right and left wings of the army, his august person stood in the centre just like the moon in the midst of the stars. The infidel Tátárs (may confusion and dismay be on them) crossed the river Laháur and opposed the army of Islam. These people, wild and desert born, have put the feathers of the owl on their inauspicious heads, while the warriors of Islam consisting of the Turkish and Khaljí Maliks and the nobles of Hindustán and the entire army in the prayer-place of battle (for the reason that the Prophet has compared *Jihád*³ to that of prayer, saying "We return from lesser war to the greater")⁴, raised their hands by shouting "God is great". In the first attack a large number of the Mongol cavalry were put to the sword. The lances of the Maliks of the state pierced the limbs of the enemy in such a way that each one of them began to spurt blood, and the plumes of the arrows of the Turks, who were in attendance on the prince, became so interlaced in the persons of the Tátárs that no space was left. Every time, the lion-hearted lord, the wielder of the sword, made his attack from the centre of the army with a sword as pure as his faith, you would say that in that field of battle, the sword was trembling at the heroic conduct of the prince; and transforming itself into a tongue was saying to him, "To-day leave the suppression of this disaster and the destruction of those infidels to the servants of the state. Do not take this personal risk, because the sword is two-edged and the sword of death is not a respecter of persons in its work. No one knows what will happen to whom through the decree of the powerful Fate. I close my eye against that fateful eye."⁵

'During the time he was performing the rites of the holy war and the ceremonies of battle in the field of endeavour, each

¹ Badáúní's text says گروهی meaning a band of people. The T.M.S. writes as گردی از سمت آن کفره پدید آمد. This reading seems to be correct and makes the sense more clear.

² Alexander the Great is believed to have built a very strong wall against the incursions of the wild races of Northern Asia to which many of the Persian writers refer. This wall is also known as the wall of Gog and Magog.

³ The holy war.

⁴ According to the Šúfis there are two *Jiháds*: (i) *Al-Jihád u'l-Akbar* or the greater warfare, which is against one's lust, (ii) *Al-Jihád u'l-Aqhar* or the lesser warfare directed against infidels. (H.D.I.)

⁵ عين الكمال 'Ayn u'l-Kamál. The evil effect of some eyes which is supposed to kill people by their piercing glance.

of the weapons began to speak in the following way. The lance said: "O, prince! Withdraw thy hand from me; the tongue of my point, on account of constant fighting and slaying has become blunt; I have not the strength to pierce the enemy. God forbid, that when I charge, an unfortunate movement may appear from me." The arrow said: "O, thou! The knot of whose bowstring opens the knot of the nodes, do not advance to meet this danger; for I, myself throw dust on my hand in advancing to this dangerous spot. God forbid, that the narrow-eyed Turk of the sky, who is in the fifth House, should shoot an arrow of error by way of tyranny and ruin from his bow of malice from the place of ambush at the door of the eight House." And the lasso said: "To-day the string of planning should not be left out of the hand of deliberation, for I am contorted within myself at this hasty war and this rash conflict. Wait for a while; because Islam and the Muslims are like a rope fastened to the tent of your bounty. O, God! Do not allow so much space to the custom of noose-throwing with these people."

"In short, that prince, the defender of faith and destroyer of infidelity, from noon till evening, with the main body of his army, carried on the battle with great vigour against that band of heathens. The uproar of the victors and the clamour of the lovers of battle had deafened the ears of the earth and the sky. The fiery tongues which sprung up from the heads of the lances, and the tongues of the swords did not err a single letter in executing the order of the angel of Death, all uttered the verse, "A day when man will flee from his brother".¹ The surface of the earth was full of blood like old men who had lost their sons, and the face of the sky was covered with dust like the heads of sons who had lost their fathers.

"In the very midst of this conflict and calamity, suddenly an arrow from the quiver of Fate had struck the wing of that royal falcon of the field of holy war. And the bird of his soul had flown from the cage of the body towards the garden of paradise, "Verily we belong to God and unto Him do we return".²

"At that moment the prop of the religion of Islam broke like the broken heart of an orphan, and the rampart of the faith of Islam had fallen low like the tomb of the poor. The strength which the state had, passed away and the radiance which Islam possessed had disappeared. It was just at the time of sunset that the moon of the life of that prince, whose fortune was on the wane, sank in the west of extinction.

¹ Qur'án, Sura LXXX, 34. يَوْمَ يَفِرُّ الْمَرْءُ مِنْ أَخِيهِ

² The Qur'ánic verse uttered by a Muslim at the death of a person.

'The sky, after the manner of mourners had put on a blue garment and began to shed black tears over its cheeks; Saturn in accordance with the rules of fidelity and the customs of mourning had blackened its garment, and began to weep over the condition of the people of Hindustán, at his death. Jupiter, in grief for that dust-soiled body and blood-stained mantle, began to tear his garment and throw his turban in the dust. The heart of Mars, on account of his death, became narrow like the eyes of the Turks, and the face of his life became stiff and black like the curls of a Negro, and being sorely grieved at this event brought forth his heart's blood. The Fish (sign pisces) began to tremble like a ram in the clutches of the butcher. The Sun, out of shame, as to why it did not strive for the prevention of this calamity and disaster, did not appear but sank below the earth. When Venus saw the sufferings of the heavenly bodies at the clutches of Time, she played her tambourine more vehemently, changed the tone of the drum and began to sing in a different tune; and instead of playing her instrument she began to weep over the death of that magnanimous prince. Mercury, who in wars and conquests used to record like a scribe the deeds of victory, on that occasion of tyranny blackened his face with the ink of his ink-pot, and clothed himself with a garment of papers made of the pages of his record. The resplendant moon, in the shape of a crescent with a bowed stature, in that land of resurrection, was striking her head against the door and wall of the horizon and observed the rites of condolence.

'May God the Great and Exalted raise the holy and pure soul of that warrior prince to a lofty position and high station, and bestow on him His eternal beauty, greatness and glory! May every kindness and favour which he showed to this poor and forlorn one, be the cause of increasing his dignity and the remover of his faults, Amen! O Lord of the Worlds!'¹

¹ The authenticity of this *Margiya* has been questioned by Ranking in a note appended to his translation of Badáúni (Vol. I, p. 188, Note 5). He says 'Ziyá-u'd-Din Baraní attributes this lament to Amír Khusraw. Firishta also states that Amír Khusraw escaped when the prince was killed, and wrote a lament. It seems probable therefore that the lament should be attributed to Mír Khusraw. The Ḥasan which occurs in Text and both MSS. (A), (B) may have its origin in a copyist's error.' The conclusion drawn by this learned scholar is based on a wrong and incomplete translation of a passage of Baraní by Sir Charles Elliot, which says 'Amír Khusraw was made prisoner by the Mughals in the same action, and obtained his freedom with great difficulty. He wrote an elegy on the death of the prince.....' (vide Elliot, Vol. III, p. 122). But neither Baraní nor Khusraw himself makes any reference as to his writing a prose *Margiya*. On the other hand Baraní definitely says that Khusraw wrote two poems (p. 110):—

امیر خسرو در آن حرب اسیر مغل شده بود و بنوعی از دست ایشان رهائی یافت

و او در مرثیة خان شهید دو شعر گفته است ه

Intimate friendship with Khusraw.—Here in the court of Khán-i-Shahíd the love and friendship between Hasan and Khusraw had developed to such an extent that their calumniators began to ascribe to them gross misconduct.¹ This calumny was reported to the prince. The prince had forbidden Hasan to associate with Khusraw, but he did not comply with his demand and continued to associate with Khusraw as before. The matter was again reported to the prince. This time, the prince was annoyed at Hasan's disobedience and ordered him to be flogged. But to the utter surprise of the prince and the courtiers he immediately ran to Khusraw's house. The prince then summoned Khusraw and Hasan and demanded an explanation of their alleged misconduct. Khusraw explained their connection to be based on the idea of divine love purged from all earthly impurities, and said, 'Duality has disappeared from us'. Then bringing out his hand he displayed to the prince the marks of the strokes impressed in his own hand, exactly in the place where Hasan received them and said 'The proof of real friendship is in the hand'.² The prince was silenced by this reply and Khusraw recited the following quatrain³:—

'Love came and ran through my veins like blood,
It had emptied my self and filled it with the Friend,
The limbs of my body, the Friend possessed,
All is He, nothing of me is left.'

We cannot believe in the miraculous transmission of the punishment of Hasan to Khusraw as it is described by their biographers. It is quite probable that Khusraw's love for Hasan was so deep and sincere that he could not bear the punishment Hasan suffered on his account, and consequently he might have inflicted on himself as a proof of real love and sympathy, the same amount of injury as was received by Hasan. But,

'In that battle Amír Khusraw was made a prisoner by the Mughals, and obtained his freedom by some device and he has written two poems in lament of Khán-i-Shahíd.' Firishta says nothing about the *Margiya*. He mentions:

امیر خسرو دران معرکہ حاضر بود اسیر منل گشته و بآن نوع کہ در خضر خانی

و دیوہدی رانی ثبت افتادہ رہائی یافت و دہلی شتافت *

(Vol. I, p. 144). 'Amír Khusraw was present in that battle. He became a captive of the Mughals and obtained his freedom in the way as it is described in his *Divaldí Rání* and *Khizr Khání*.' From these facts it appears that this *Margiya* is a genuine work of Hasan and is rightly attributed to him by the historians of India.

¹ They were accused of belonging to a heretical sect of Šúfís known as *Malamatis* who practise some reprehensible acts opposed to orthodox opinion (*vide* Firishta, Vol. II, p. 755).

² M.U.s., Or. 208, f. 99; Firishta, Vol. II, p. 755.

³ M.U.s., Or. 208, f. 99.

however, there is a certain amount of truth in the story. Ḥasan has probably referred to this incident in the following poem ¹:—

‘As the demonstration of excellence was perfected by
thy beauteous down,
The private affliction of ours became public enow,
The seed I sowed in thy hope is cast to the dust,
The cauldron I boiled in thy love, putrid became.
My reason, which placed the saddle on the bay-horse
of Time,
Subdued at last by the whip for the love it bore to
thee.
He who declares not lawful the creed of thy love,
May his blood be lawful and unlawful his dear life.
O, Khvāja! Be firm in the street of rectitude,
(For) None can achieve fame in the lane of love.
Maḥmūd Ghaznaví, the lord of thousand slaves
Bridled by love became the slave of a slave.²
O Ḥasan! Die in love so that perfection thou mayest
attain,
Have you not heard? He who dies perfection attains.’

This type of love which we find between Ḥasan and Khusraw was not uncommon among the Ṣufí poets. To a superficial observer it may be quite a grotesque and reprehensible action. But the idea of such love was quite different among them. It was platonic, something holy and pure, free from passionate desire. They adored beauty for its own sake on the principle that ‘Beauty is truth, truth beauty’. Once Sa’dí the great Persian poet heard of the exquisite personal charms of the son of Khvāja Humám u’d-Dín, a man of great distinction and poetical talent at Tabríz, he travelled to that city for the sole purpose of gratifying his eyes by the sight of his beauty.³ Sir Gore Ouseley remarks: ⁴ ‘Sa’dí was a great admirer of beautiful youths, like all other Ṣufís, we may hope, who profess the most ardent, but platonic affection for individuals of their own sex, famous for beauty and talent, declaring it to be less selfish than the love of man to woman, and that they pay the most perfect adoration to the Creator, by thus disinterestedly loving and admiring His handiwork.’ The words quoted here may equally well be applied to Khusraw and Ḥasan. Our poet expresses this idea in the following verses of one of his poems ⁵:—

¹ D.H., I.O.L., f. 123b.

² The reference is to Sultan Maḥmūd’s love for his favourite slave Ayáz.

³ M.U.s., Or. 208, f. 95.

⁴ N.P., p. 13.

⁵ D.H., I.O.L., f. 184b.

شمعست رخت یا مه نی هر دو خطا دیدم
 در وصف نمی آید روی که ترا دیدم
 من در تو نظر کردم تو در سخن بنده
 تو صنعت من دیدی من صنع خدا دیدم

'Is thy face a lamp or a moon? No I am wrong in both,
 Beyond description is thy face that I see;
 I look at thee and thou at my verse
 Thou admirest my art and I the handiwork of God.'

In similar way Háfiz also describes the pure nature of love he practised¹ :—

منم که شهره شهرم به عشق ورزیدن
 منم که دیده نیالوده ام به بد دیدن

'That one, am I who am renowned for love-playing
 Not that one am I who have stained my eyes with
 illseeing.'

The friendship between these two poets seems to have been of a permanent nature and we find complimentary references made by each to the other. In one of the discourses of Nizámu'd-Din Awliyá compiled by Amír Khusraw under the title of *Ráhat-u'l-Muhibbin*² he calls Hasan 'my brother'. In the *Dibácha-i-Ghurra't u'l-Kamál* where Khusraw condemns the jealousy of his contemporaries and calls them men of very low merits, he pays a high tribute to the writings of Hasan in the following words:—

'If any one praises the meaningless verses of Mu'izzí for the beauty of their style and diction, he ought to study the style and diction of Saiyid Hasan, Nizámí and Zahir, so that he may be acquainted with them and become a discerning judge.'³ Hasan always refers to Khusraw in the most affectionate terms. He calls him his brother.⁴ He also, like Khusraw,

¹ D.H.B., No. 461.

² R.M., or 1756, f. 175. This book contains the utterances of the Awliyá made during the year 689-90 A.H. The name of the author does not appear on the title page, but from the preface attached to it, it is evident that the author is Khusraw, who says that this book was compiled after the compilation of his former edition known as *Afzal-u'l-Favá'id* and calls the author as Khusraw Láchin.

³ G.K., Add. 23, 549, f. 196.

⁴ D.H., Bodl (Ousley, 122), f. 287.

complains of the jealousy of some of his contemporaries, as the following verses show:—

1. از سخن دزدی نیارد شد کسی صاحب سخن
دیو اگر انگشتی دزدد سلیمان کی شود
اهل در داند در افشاندن و درج معرفت
آنکه او گل دزد باشد او در افشان کی شود
از فضول (؟) حاسدان فضل حسن مخفی نماند
آفتاب اندر پر خفاش پنهان کی شود

'None can become a master of poetry by pilfering
(others) verses,
How can the devil become Solomon by stealing his
ring?
The possessor of pearl knows how to scatter pearls and
(to use) the casket of knowledge,
He who is a pilferer of clay, how can he become a
scatterer of pearls?
The virtues of Hasan will not be concealed by the
detraction of his enemies,
How can the sun be concealed under the wing of the
bat?'

But on the other hand he pays a high compliment to Khusraw in the following verses:—

2. خسرو از راه کرم بپذیرد آنچه من بنده حسن میگویم
سخنم چون سخن خسرو نیست سخن اینست که من میگویم

'Khusraw accepts by way of kindness
Whatever the humble Hasan says.
My poetry is not like the poetry of Khusraw,
This that I say is true.'

Some of the biographers³ say that Ḥasan was a pupil of Khusraw and that he used to imitate the style of the latter.

¹ D.H., I.O.L., f. 111.

² D.H., I.O.L., f. 227. Dr. Mirza in his *Life and Works of Amir Khusraw* (p. 49) holds that these verses are a sarcastic allusion to Khusraw. But in view of internal and external evidences in our possession regarding the most intimate friendship between these two poets, I think, these verses were written as a compliment to Khusraw and not as sarcasm.

³ T.D.S., p. 247; K.A., Add. 18, 542, f. 65a; Taqī Kāshī, I.O.L. 667, f. 540b.

But in none of the works of these two poets do we find any reference which gives evidence for this statement. On the other hand Ḥasan asserts that he had followed the ideas of Sa'dī and tried to plant them on Indian soil. In one of his *Ghazals* he says:—

حسن گلی ز گلستان سعدی آوردست¹

که اهل معنی گلچین آن گلستانند

'Ḥasan has brought a rose from the (*Gulistán*) rose-garden of Sa'dī,
Because the mystics are the gatherers of the rose of that (*Gulistán*) rose-garden.'

In another place he says²:—

در خم معنی حسن را شیوه نوریخت عشق

شیره از خنخانه مستی که در شیراز بود

'In the goblet of spirituality Ḥasan has filled a fresh elegance of love,
With the grape-juice from the tavern of intoxication of Shiráz.'

In a similar way Khusraw also says that he had followed Sa'dī in his *Ghazals* and Nizāmī in *Magnavī*.³ It seems from their statements that both of them followed the same school of thought in their lyrical poetry and it is for this reason that we find the similarity of ideas between these two poets, which led some biographers to conclude that one is the pupil of the other.

Ḥasan at the court of Jalāl u'd-Dīn-Firūz.—After the death of Khān-i-Shahīd we do not hear of Ḥasan's active association with the court until the accession of Sultān Jalāl u'd-Dīn Firūz Shāh Khaljī in A.H. 689 (A.D. 1290).⁴ This was probably

¹ D.H., I.O.L., f. 107a. There is a pun upon the word *Gulistán*, the book of Sa'dī and a rose garden which cannot be preserved in translation.

² D.H., I.O.L., f. 137.

³ G.K., Add. 21, 104, f. 163a.

⁴ Baranī places the date of his accession in A.H. 688 (p. 175). But Khusraw gives the exact date and year to be Tuesday, the 3rd of Jamād II, 689 (Mif., F., Add. 21, 104, f. 874a).

جاء دومین را سومین روز سوم ساعت ز روز عالم افروز

بگاه چاشت با فیروزی فال ز هجرت ششصد و هشتاد و نه سال

Badā'ūnī follows Khusraw while Nizām u'd-Dīn retains the date of Baranī.

because he was a man of retiring disposition and elected to lead the life of a passive spectator during the turmoil which followed the death of Balban. When Jalál u'd-Dín established his power firmly he joined the circle of the scholars of the court and became one of the recipients of royal favours.¹

The scholars, contemporary with our poet at the court of this monarch, were Táju'd-Dín 'Iráqí, Amír Khusraw, Muwayyid-Jajaramí, Mu'yíd Dívána, Amír Arslán, Ikhtiyár u'd-Dín Bághí, Báqí Khatíb, Ša'd-Mantiqí and Mughis Hansaví. Each of them is said to be a poet of high order and an accomplished master in history.² A *Ghazal* written in nineteen different metres is ascribed to the last named. But the works of these scholars, with the exception of Khusraw have not come down to us. Besides the persons mentioned above, Khusraw adds the names of Mawláná Shiháb-u'd-Dín, Qází Siráj, Táju'd-Dín Záhid and 'Alá'u'd-Dín-'Alí Sháh who reflected credit upon the assemblies of the court with their poetical compositions and philosophical discussions.³

Sultán Jalál u'd-Dín was not only a patron of learned men but also he possessed himself a certain amount of poetic genius. Amír Khusraw pays him a very high compliment for his judicious appreciation of men of talent and says that none of the monarchs of his age had his intelligence or literary taste.⁴ Badáúní has ascribed to him three quatrains, one of these was composed as an inscription for a pavilion he built at Gawálior. It runs thus:—

ما را که قدم بر سرگردون ساید⁵
 از توده گِل چه قدر ما افزاید
 این سنگ شکسته زان نهادم درست
 باشد که دل شکسته آساید

'I whose foot spurns the head of heaven
 How can a heap of clay augment my dignity?
 I laid right this broken stone in order that
 Perchance some broken heart may take comfort.'

Accession of 'Alá'u'd-Dín.—In the year 695 A.H. (A.D. 1296)⁶ was perpetrated one of the most heinous crimes that

¹ Firishta, Vol. I, p. 156.

² *Ibid.*

³ G.K., Add. 21, 104, f. 184b.

⁴ *Ibid.*, f. 179b.

⁵ Badáúní, Vol. I, p. 182.

⁶ Baraní, p. 223.

has ever been recorded in the annals of India. It was the murder of Sultán Jalál u'd-Dín by his nephew and son-in-law, 'Alá'u'd-Dín. After the return of 'Alá'u'd-Dín from his Deccan campaign with enormous wealth he persuaded the King through his brother Ulugh Khán to visit him unarmed in his camp at Kara on the bank of the Ganges. The counsellors of the King, suspecting some treacherous design on the part of 'Alá'u'd-Dín, warned him not to risk taking such a step. But the King had such love for 'Alá'u'd-Dín and such great confidence in him that he did not listen to their advice, but went to meet his nephew under the delusive impression of his fidelity on the 17th of *Ramzán*,¹ just as a father goes to see his son. When he landed at the camp, 'Alá'u'd-Dín came forward with some of his nobles and all made their obeisance. The Sultan was highly pleased at his behaviour and began to give him paternal admonitions in the following words:—'You are always dearer to me than my own sons. What fear led you to make me come here during the fast? None can come between you and me. These strangers who are now flocking around you for your gold will run away as soon as they see you with no gold. But my affection and love for you will not diminish even if the whole world turns against you'.² Having finished these words the King held 'Alá'u'd-Dín's hand, and wanted to go to his special boat. At this juncture an assassin, named Maḥmūd-Sálim, at the signal of 'Alá'u'd-Dín attacked the Sultan, and wounded him severely. The King had just strength enough to run towards his boat, crying: 'Oh, ungrateful 'Alá'u'd-Dín! what have you done?'³ And as he was attempting to save himself, another assassin named Ikhtiyár u'd-Dín Húd came and severed his head from his body. It is surprising to find that neither Amír Hasan nor Khusraw makes any mention of this tragic event. Probably, both of them being the poets of his court and recipients of 'Alá'u'd-Dín's gold deliberately connived at this incident and praised their patron for his valour and statesmanship. Baraní describes this as one of the most atrocious deeds that has ever been perpetrated since the creation of the world.⁴

After the murder of Jalál u'd-Dín, 'Alá'u'd-Dín proclaimed himself King in his camp. Aḥmad Chap, one of the generals of the late King, did not submit to the usurper, but returned to Delhi with his army. The widow of Fírúz raised her younger son, Qadr Khán, to the throne under the title of Sultan Rukn u'd-Dín Ibráhim at Delhi.⁵ But this young prince could not

¹ Baraní, pp. 231-35.

² *Ibid.*, p. 234.

³ *Ibid.*, p. 235.

⁴ *Ibid.*, p. 235.

⁵ Hasan must have been in his court for some time as we find two poems written in honour of Sháh Rukn u'd-Dín Ibráhim (D.H., I.O.L., f. 201).

consolidate his power, whereas 'Alá'u'd-Dín by his profuse distribution of gold began to gain the support of the nobles and a few months after the murder of Fírúz he entered Delhi at the head of his army and ascended the throne at the end of the year 695 A.D. (A.D. 1296) at the 'Red Palace' of Balban.¹

'Alá'u'd-Dín was a very presumptuous and ambitious man. He was not satisfied with the kingly crown of Delhi but wanted to equal Alexander in his world conquest and the Prophet Muḥammad in his spiritual domain.² He was, however, discouraged by his supporters in his ambition to be accepted as a Prophet but he was undaunted in his desire to achieve the fame of Alexander. Although he could not execute his plan of world conquests beyond the limits of India, yet he assumed the title of Alexander II. In many of the *Qasidas* of Amír Hasan he is addressed as *Sikandar-i-Sání*³ (Alexander II). This fact has also been corroborated by the evidence of some of the coins and inscriptions of his time. His gold coins struck in 709 A.H. (A.D. 1309) bear the following inscription.⁴

Circular areas:—Alexander II, the right hand of the Caliphate, the supporter of the commander of the faithful.

The legend occupying the full face of the coin:—Sultan 'Alá'u'd-dunyá-u'd-Dín Abu'l-Muẓaffar Muḥammad Sháh al-Sultan.

Margin:—This coin was struck at Delhi in the year 709.

Hasan at the court of 'Alá'u'd-Dín.—After the death of Sultan Jalál u'd-Dín, Ḥasan transferred himself to the service of Sultan 'Alá'u'd-Dín Khaljí. He was first introduced to the court by Malik 'Izzu'd-Dín Ulugh-Khán and he refers to this incident in the following verses of a short poem addressed to him.⁵

مرا از ژرف دریای خطرناک
تو آوردی برون چون گوهر پاک
پس اندر صدر دولت راهدادی
محل دست بوس شاه دادی

¹ Baraní, pp. 246-47.

² *Ibid.*, pp. 262-271.

³ D.H., I.O.L., ff. 23, 26, 36, 40a, 42a, 43a, 51b.

⁴ Thomas's 'The Chronicle of the Pathan Kings of Delhi', pp. 168-174. Ḥasan also addresses him as Yamin-u'l-Khiláfat, or the Right hand of the Caliphate, in the following verses:—

توئی بر خلافت بحق دست یاب یمین الخلافت از آن شد خطاب

(D.H., I.O.L., f. 246).

⁵ D.H., Bdl. (Ousley, 122), f. 280.

ز سلطان گنجم آوردی و تشریف
عطای خود به آنجا کردی تضعیف

سر بختم تو بگرفتی ز خفتن¹
من این را کی توانم شکر گفتن

'From the depth of a perilous sea
You have brought me out like a pure pearl;
Then you have introduced me to the court,
You gave me the honour of kissing the hand of the
King;
You have brought me wealth and honour from the King,
(And) doubled it by gifts of your own,
You have raised my fortune from its sleep,
How can I offer thanks to you for all these things?'

Here at the court of this king we find Ḥasan at his best; and this is the most fruitful period of his life, when he completes his *Divān* and attains great fame as an eminent poet. Ziyā Baranī, the contemporary historian of our poet, says: 'Amīr Ḥasan Sijzī was a unique figure among the poets of the time of 'Alā'u'd-Dīn'.²

Promotion of learning during 'Alā'u'd-Dīn's reign.—The reign of 'Alā'u'd-Dīn from A.H. 695–715 (A.D. 1295–1315) is one of the most flourishing periods of Indo-Persian literature. Delhi, under 'Alā'u'd-Dīn, possessed one of the most brilliant bands of savants, the like of which we fail to find even in the court of his successors, the great Mughals. The activities of these scholars were not confined to any particular system of learning but were diffused over various branches of mundane and spiritual sciences. Baranī³ mentions the names of forty-six scholars of great repute who have devoted their time and energy to the development of traditional and rational sciences; and large numbers of students used to flock round them to receive instruction in these branches of learning. The same historian remarks in another place that each of these men could compete with any of the learned scholars of Bukhārā, Samarqand, Baghdād, Egypt, Khivā, Damascus, Tabrīz, Ispahān, Ray and Iconium. Besides these scholars, so highly spoken of by the historian, there were other men of talent who turned their attention towards the development of the science of

¹ This verse in the MS. is written as سر بختم پر کردی ز آن حسن. But it does not conform to the metre so I have adopted the above reading.

² Baranī, p. 360.

³ *Ibid.*, p. 353.

Qir'at (reading of the *Qur'án*), the arts of preaching, poetry, History, and the sciences of Medicine, Astronomy, Astrology and Necromancy, so that we find during this period an all-round development of Indo-Persian culture.

Of the Readers of the *Qur'án*, Mawláná Jamál u'd-Dín Shátbí, Mawláná 'Alá'u'd-Dín, and Khwája Zakí, a nephew of Hasan of Basra, obtained very great reputation throughout the length and breadth of the country. The most noteworthy preachers of the time were Mawláná 'Imád u'd-Dín Husám Darvish, Mawláná Ziyá u'd-Dín Sannámí, Mawláná Karím u'd-Dín and Badr u'd-Dín of Oudh. They used to deliver weekly lectures on religious and spiritual subjects to large congregations. The efforts of these scholars had brought about a change in the mental outlook of the people of the capital and contributed a great deal for their moral advancement.

'There were poets', says Baraní, 'in the reign of 'Alá'u'd-Dín, such as never existed before or after'.¹ Besides Hasan and Khusraw, who headed the list, there were other men of high poetic talent, such as Šadr u'd-Dín 'Alí, Fakhr u'd-Dín Qawwás, Hamíd u'd-Dín Rájah, Mawláná 'Árif, 'Ubaid Hakím, Shiháb Anšári, and Šadr Bustí, who adorned the court of Delhi. Each of these poets was in receipt of allowances from the state and each one of them is said to have left us a *Díván*.²

Of the historians at the Court of 'Alá'u'd-Dín there were two men noted for their proficiency in this branch of learning. One is Amír Arslán-Kuláhí and the other Kabír u'd-Dín, son of Táj u'd-Dín 'Iráqí.³ Amír Arslan had such a wonderful memory that when 'Alá'u'd-Dín asked him any question on the history of the past kings he could enlighten him on these points without any reference to the texts. Kabír u'd-Dín was held in great esteem by the Sultán, and was appointed to the post of the Chief Judge of the Imperial Army.⁴ He wrote a history of the reign of 'Alá'u'd-Dín describing in detail all the conquests and achievements of his sovereign. Baraní has used it as one of his sources for the *Ta'rikh-i-Firáz-Sháhí*. But he complains that this history is rather a eulogium than a mere statement of fact. All the defects of 'Alá'u'd-Dín's administration have been deliberately suppressed and his achievements and character have been extolled beyond limit. We cannot blame this historian for his one-sided view, as he had to present every part of this history to the Emperor for his approval, so that he had to guard against writing anything which would incur the displeasure of the monarch.⁵

¹ Baraní, p. 359.

² *Ibid.*, p. 361.

³ *Ibid.*, p. 361.

⁴ *Ibid.*, p. 361.

⁵ *Ibid.*

The science of Medicine was studied equally with other branches of learning. A large number of skilful physicians grew up at the capital and people of different castes and creeds—the Brahmins, Jāts and the Muslims—took keen interest in the development of this science. Among the physicians of Delhi, Mawláná Badr u'd-Dín-Damashqí occupied the highest position. He not only attended to his patients but often used to give instruction to other physicians of the city. His proficiency in his profession was so high that he could diagnose any disease by examining the pulse of the patient and could say whether a particular ailment was curable or not. There was also another group of scholars who devoted their time and energies to the development of the sciences of Astronomy and Astrology. The services of this group were equally appreciated by the king as well as by the nobility. The chief of the astronomers of the Court was Mawláná Sharaf u'd-Dín who was granted a substantial allowance and the income from several villages, by the Sultán.¹

The Persian spoken and written in India during this period was much purer than that found during the later Mughal days. The early emigrants retained the purity of their tongue, which their successors failed to do. The following interesting account of the Indo-Persian language has been given by Amír Khusraw:²

‘The singers of the land of Hindustán, particularly the emigrants who have settled at Delhi, surpass all the scholars of the world in their attainments. Therefore no Arab, Khurásání, Turk, Indian, nor any other who comes to the Muslim cities of India and spends his whole life in places like Delhi, Multán and Lakhnawtí, and not in places like Gujarat, Málwa and Deogír, the land of Hindu idolatry, suffers deterioration in his own language. Assuredly he speaks according to the standard of his own country. For example, if he is an Arab, he is the master of his own language only, and he cannot lay a proper claim to the language of others; his broken speech is a proof of his foreign origin. If a Hindu citizen or a villager continually lives and mixes with the inhabitants of Delhi, yet there is imperfection in his Persian. A Khurásání, ‘Iráqí, Shírází or a Turk, however intelligent he may be, commits blunders in the Indian language, even if he burns many a midnight candle and claims eloquence in an assembly, yet at the end he stumbles and breaks down. But the Munshís (secretaries) born and brought up in Indian cities and particularly at Delhi, with but little practice, can speak and understand the spoken language (of others) and also obtain a command over prose and verse; they can adopt the style of every country they visit. And it has been fully proved from experience, that many

¹ Baraní, p. 363-64.

² G.K., Add. 21,104, f. 155.

of our people who have never been to Arabia, have acquired an eloquence in the Arabic language such as has not been achieved by the scholars of Arabia themselves who take lessons from the flow of their language. The Arabs, in spite of being eloquent in their own tongue, have not ability to learn our Persian correctly.

'I have seen many a Tázik¹ and Turk who learn Turkish with industry and erudition in India; and they speak in such a way that the eloquent men of this tribe who come from their original home are astonished at it. In the case of the Persian language, which has been derived from the Persians, there is no other correct style than the style of Transoxiana, which is the same as that of Hindustán. Because the Khurásánís pronounce the word چه (cha) as چی (chí) and some of them read کجا (kujá) as کجو (kajú) but in writing they write چه (cha) not چی (chí) and کجا (kujá) not کجو (kajú). The correct pronunciation is that denoted by the spelling. There are many words like these which are pronounced in one way but wrong if written so. But the Persian speech prevalent in India, from the bank of the Indus to the coast of the Indian ocean is everywhere the same.' It is evident from this account that the standard style of Persian adopted in India was that of the Transoxiana.²

After describing the state of science and literature during 'Alá'u'd-Dín's reign, Baraní complains that the Sultán did not show proper consideration for the merit of the scholars of his time. If these scholars had remained at the Court of Maḥmúd or Sanjar each of them would have been rewarded with the

¹ The word Tájik or Tázik is used by different writers in different senses. The early Armenian writers applied it to the Arabs. Modern Armenians have imposed it on the Turks and the Turkish empire and even on Muslims in general. Prof. Nöldeke has suggested that Tájik (better Táchik) and Tází are the same word, the former being merely the older form. *Chik* means 'belonging to' and in this case 'belonging to the tribe of Tai'. In modern Persian *Chik* becomes *Zi*. D'ohsson says, 'The Mongols gave the name of Tájik, or Tázik to the Muhammadans, and in the historical works of this period it will be found that they employed this word in opposition to that of "Turk"'. The first served to designate the Muhammadan inhabitants of towns and cultivated lands, whether they were of Turki, Persian or Arab origin mattered not.' (Vide Ross and Elias's Introduction to *Ta'rikh-i-Rashídí* pp. 85, 87, 90-91.) I think Khusrav has used this term in the sense of Persian speaking Turkestáni.

² It is after Sikandar Lodi's accession to the throne in A.D. 1489 that the Hindus began to study Persian to qualify themselves for employment in the government offices, since then we find an increasing difference in the style of India and Persia proper. (Firishta, Vol. I, p. 344):—

و کافران بخواندن و نوشتن خط فارسی که تا آن زمان در میان ایشان معمول

نبود پرداختند *

income of a principality. But in spite of this alleged indifference of the king, we find his reign to be one of the most flourishing periods of Indo-Persian scholarship. Baranî calls it one of the wonderful phenomena of his time, which he fails to explain, and he has rather exaggerated the king's indifference. It is of course true that the king did not squander money on men of letters as some of the oriental potentates do, but we cannot say that he was entirely without generosity to them. His bounty was regulated by a consideration of the economy of the state and consequently he paid the poets of his court what he considered to be most reasonable. Khusraw, in describing the character of the king, refers to the principle of moderation that always governed his actions, in the following words:¹

'The characteristics of his august nature are in accord with the canons of wisdom; his anger is like a pleasant fire that cooks, but which does not burn the world; his mercy is like that of a fresh breeze that raises no dust; his disposition is like water that pleases, but does not drown; and his generosity is like a mine that produces wealth but destroys it not.'

The development of art and literature during 'Alâ'u'd-Dîn's reign, may be ascribed chiefly to two causes: first, to a strong and stable central government² and a general peace and prosperity in the country, which led to the growth of a leisured class that could devote its time to the promotion of learning; and secondly, to the gradual increase in the number of emigrants from Irân to India; these emigrants by this time had made India their permanent home and, living under a more settled and peaceful government, could transmit their heritage to Indo-Persian culture. A very interesting account of the general peace and prosperity of the country has been left to us by Amîr Khusraw, a study of which gives us a true picture of the age. I am quoting below a few of its passages:—³

'How excellent! The carpet of peace and tranquillity is spread over the whole domain, for from the forts of Delhi to the courtyard of Khurâsân, a carpet of ruby-coloured satin has been laid with the blood of the red-faced chinese, so that every rebellion and disturbance have fallen low.

'In one direction the mountain-like army of Chingîz-Khân has been driven beyond the Oxus by the hurricane of his Majesty; and in the other direction not only have the powerful *Râis* of India, who with their thousands of elephants used to trample the ranks of the Turks, been forced to surrender their elephants and their wealth, but some of them who still held their heads

¹ I.K., Vol. I, p. 39.

² For details of the administrative regulations and the strength of the Government, see Baranî, pp. 304-325; and C.H.I., Vol. III, Ch. V.

³ I.K., Vol. I, pp. 16-22.

up were crushed in such a way that their heads were thrown like oilcans under the elephant's feet.....

'In affairs relating to the spread of justice and welfare of the people, his bright intellect has formulated such laws as could never be seen in the mirror of Alexander's imagination or in the cup of Jamshíd. For the purpose of cheapening corn, which is the leaven of one's sustenance, he made such regulations by his balanced judgment, that if for years the wandering cloud does not rain, the hot-tempered wind does not blow, the red-faced earth does not grow any verdure, and the scorching sun fails to ripen the crops, he can feed the entire people from the royal granaries..... And other necessities of the people, even if they be red-sulphur or white ruby, have been rendered by him easily available and cheaper than yellow amber and red-grape-stone. And money which is the elixir of desire and the treasure house of cherished objects, has been made so cheap by his elephant-loads of gifts and charities, that the dearness of the price of a thing is never felt by any person, so that complete peace and prosperity prevail in his dominions.....

'The administration of his justice is always bringing good fortune upon his subjects. Owing to the general peace and prosperity during his auspicious reign, the weapons of war are lying idle in every direction..... The dagger of the believer, which was cleaner than the heart of a Sunni, has become rusted like the iron heart of a pagan..... The roads are more secure than the veil of chastity worn by virtuous ladies. The districts are free from anxieties like contented children in the lap of a kind mother..... The dawn of the King's fortune has nothing to do but to bestow favour over the world, and the canopy of his evening has no other work but the distribution of peaceful sleep among the children of Adam.....'

In a similar way Hasan also refers to the general peace and prosperity of the country in some of his poems addressed to 'Alá'u'd-Dín. In one place he says:—

حشم از جاهش افزوده خدم از جودش آسوده¹

ستم در عهدش آواره جهان از عدلش آبادان

'His grandeur augments the retinue, his generosity satisfies the servants,
His reign has banished oppression, the world abounds with his justice.'

¹ D.H., I.O.L., f. 416.

In another place he says :—

ای بزمان دولت گرگ مربیعِ رمه¹
وی بضامنِ رحمت ماهِ رفوگرِ کتان

‘O, thou! In thy reign the wolf is the guardian of the flock,
Under thy protection the moon is the mender of linen.’

Intimate Association of Hasan with Nizām u'd-Dīn Awliyá.—

During the reign of ‘Alá’u'd-Dīn, we find Hasan in closer association with Shaykh Nizām u'd-Dīn Awliyá. Although he came in contact with the Shaykh at a time much earlier than this, his acquaintance with him was casual rather than intimate. The incident which brought about a change in Hasan's life and caused him to be one of the most favoured disciples of the Shaykh has been described by Mawláná Shiháb u'd-Dīn Imám, a contemporary divine, in the following way:—²

‘One day the Shaykh went to visit the shrine of Khvāja Qutb u'd-Dīn Bakhtiyár-Káki at old Delhi. I myself and Mawláná Burhán u'd-Dīn Gharíb were in the company of His Holiness. After visiting the shrine, we happened to pass by the tank known as Hawz-i-Shamsí, in order to visit the tombs of some other saints. At this place, Khvāja Hasan the poet, the son of ‘Alá’-i-Sanjari (Sijzi), who had been known to the Shaykh for some time past, was engaged in drinking wine in the company of his friends. When he saw the Shaykh, he came forward and recited the following verses:—

سالها باشد که ما هم صحبتیم گر به صحبتها اثر بودی بجاست
زهدتان فسق از دل ما کم نکرد فسق ماها بهتر از زهد شماست

‘Many a year have we passed in thy company
If companionship has any influence, where is it?
Thy virtue removed not vices from our minds,
Our vices are better than thy virtues.’

‘When the Shaykh heard this, he replied: “Companionship has its influence, if God wills, it will be effective one day.” This remark of the Shaykh produced such an impression on his mind that he immediately fell at the feet of the Shaykh and made a confession of all his sins and became a staunch disciple of the Shaykh along with all his companions.’ A reference to his

¹ D.H., I.O.L., f. 44b.

² S.A., Or. 215, f. 153a.

penitence at an advanced age has been made by the poet in one of his Qitās where he says:

ای حسن توبه آنکهی کردی که ترا قوت گناه نماند¹

'O, Ḥasan! thou hast made penitence at a time
When no strength was left in thee to commit sin.'

He was initiated into the circle of discipleship of the Shaykh in A.H. 707 (A.D. 1308) when he was fifty-six years of age.² The date of this initiation has been given by him in the Faváid u'l-Fu'ád, where he says:³ 'On Sunday the third of Sha'bán A.H. 707 (A.D. 1308) this humble sinner, Ḥasan 'Alá'i (Sijzi) the builder of this edifice and the compiler of these mysteries, obtained the felicity of kissing the feet of that King of heavenly dignity and of divine wisdom on this very day, by the splendour of the glance of that incomparable chief of the saints of illuminated soul, he (Ḥasan) obtained purification from the contamination of the four elements; and his head was adorned with the four cornered cap⁴ of the Saviour of Saints.' On this occasion the poet composed a *Ghazal* in which he says:

حسن امروز سر اندر قدم شیخ آورد⁵
خنگ آن بنده مقبل که بدین شاه رسید

'Ḥasan placed his head to-day, at the feet of the Shaykh,
Happy is that fortunate slave who reached this King.'

Since this time we find Ḥasan a constant visitor at the monastery of the Shaykh except for a period of eight months in the year 716-17 A.H. (A.D. 1316-17), when he was absent from Delhi and went to Deogir with the imperial army.⁶ During

¹ D.H., I.O.L., f. 227a.

² Some authorities differ as to his age at this time, e.g., The Ency. Isl. says: 'At the age of 53 he became a *Murid* of Nizām.' The Arabic History of Gujarāt (p. 858) and the *Safinat u'l-'Arifin* (Or. 213, f. 22b) say that he became a *Murid* at the age of 73. But the statement of Ḥasan quoted above shows that all these authorities are wrong in their inference.

³ F.F., Or. 1806, f. 2.

⁴ A special type of cap worn by the Sūfis of the Chishtiya order in India to which the Shaykh belongs.

⁵ D.H., I.O.L., f. 137b.

⁶ F.F., Or. 1806, f. 91. This is an expedition led by Quṭb u'd-Dīn Mubārak-Shāh against Harpāl Dev of Deogir who rebelled against the Imperial authority. The date of the expedition is variously given. Baranī (p. 389) says it was in A.H. 718 (A.D. 1318). Amir Khusraw says (*Nuh Sipihr*, Add. 21, 104, f. 675a), it was in the year of the accession of Quṭb u'd-Dīn to the throne in A.H. 716 (A.D. 1316). Ḥasan says that he returned from this expedition on Thursday the 12th of Muḥarram A.H. 717 (28th March, 1317), after spending eight months in the camp. According to this account the expedition must have been led sometime

the period of his intimate association with the Shaykh, he compiled his prose book known as the *Favá' id u'l-Fu'ád*, consisting of the utterances of the Awliyá made in different evening assemblies, which will be discussed in a later chapter. The compilation of this book was considered a mark of special distinction, conferred upon Hasan by his spiritual guide, which aroused the jealousy of his friends. Even Amir Khusraw often used to say: 'Would that the honour and distinction of compiling this book had fallen on me and that all my works were attributed to Khvāja Hasan.'¹ The poet was very highly esteemed by the Shaykh, and often poems composed by him were sung by the *Qawwáls* or mystic singers at the assembly of *Samá'* (ecstatic dance), at the monastery, in which Hasan and his friends used to join.² The *Siyar-u'l-'Arifin* gives an interesting description of the assembly of *Samá'* and the part played by our poet in these words:—³

'Whenever the King of the saints wished to listen to an ecstatic song Khvāja Khusraw would begin by reciting a *Ghazal*. Amir Hasan would sit on the right of Khvāja Khusraw and Mubashshir on the left. The above mentioned Mubashshir was a slave purchased by the Shaykh, who had in his elegant voice something of the melody of David. Khvāja Khusraw and Khvāja Hasan were unique in the art of music and unequalled for their sweetness of voice. There were two hundred *Qawwáls* in the service of His Holiness, who could bring down the birds of the air by their song, and there was also a large number of men of perfection and Sūfis of high station. When Khvāja Khusraw would recite a *Ghazal*, Khvāja Hasan and Mubashshir would immediately sing in unison the couplet of which His Holiness would show his approval and then His Holiness would come into a state of ecstasy and listen to the *Samá'*.'

Shaykh Nizám u'd-Dín was a man of very strong character, never to be tempted by material gain, in spite of the hard times he had so often to face. There were occasions when he had to go without food and suffer penury and distress, yet he would not condescend to beg any favour from the kings or the nobles of the court, but relied entirely upon God. He would of course accept what was offered to him without being asked for and spend it on the poor. His whole life was dedicated to the service of humanity and all his actions were governed by a spirit of universal love for mankind in general. These traits of the Shaykh greatly influenced Hasan's life. He tried to follow

in Jamád I, A.H. 716 (July, 1316). This being the testimony of a person who accompanied the campaign seems to be more reliable than those of others.

¹ S.A., Or. 215, f. 154a.

² M.G., Or. 4610, f. 101.

³ S.A., Or. 215, f. 139b-40a.

in the footsteps of his spiritual guide; and whenever he was faced with any problem of daily life which he was unable to solve or had some doubts as to the righteousness of a certain course of action he proposed to take, he would ask the direction of the Shaykh and do it accordingly. Once when the poet was offered a gift by a friend of his, he did not know what to do, and so came to the Shaykh and asked the following question:—¹ 'This slave has never asked nor did expect anything from any person at any time of his life, but if a person shows kindness and offers a gift what should be done?' The Shaykh replied, 'It should be accepted.' Then he acted accordingly. Ziya Baranî in describing the character of our poet says: 'For the observance of the rules of contentment, for the purity of his faith, and for the happiness he feels without any material comfort, and for the outward separation and the inward solitude from the attachment of the world, I seldom saw a man like him. He was such an amiable, pleasant, ingenious, polite and cultured man that nowhere else could I get that amount of pleasure and comfort which I used to enjoy in his company.'² These characteristics attributed to him by the historian are more or less a replica of the common traits of his spiritual guide, impressed upon him during the course of his long association with him.

The relation of the Shaykh with the reigning monarchs of his time was cordial except with Sultán Qutb u'd-Dín Mubarak-Sháh and Ghiyás u'd-Dín Tughlaq. It seems that both these sovereigns suspected him of having taken part in political intrigues against them. No direct charge could be brought against him, but the frequent visits of the nobles and some of the princes to his monastery led these kings to look upon him with some concern, especially as there are instances of holy men taking part in conspiracies during the reign of their predecessors, particularly at Multán and Delhi, where Bahá u'd-Dín-Za Kariya³ and Sídí Mawla⁴ were connected with dastardly plots against Sultan Násir u'd-Dín Qabacha and Jalál u'd-Dín Khaljî respectively.

The unfavourable attitude of Qutb u'd-Dín Khaljî towards the Shaykh arose out of the conspiracy organized by his cousin Malik Asád u'd-Dín Yaghrish Khán who wanted to deprive the King of his throne. The plot was, however, disclosed to the

¹ F.F., Or. 1806, f. 67.

² Baranî, p. 360.

³ F.F., Or. 1806, f. 119. The plot against Qabacha has been mentioned by Nizám u'd-Dín Awliyá in one of his discourses where he says that Bahá u'd-Dín Zakariyá and the Qázi of Multán were involved in the conspiracy. The plot was discovered by the sultán; the Qázi was hanged but Bahá u'd-Dín managed to get himself extricated from the charge of the crime.

⁴ Baranî, pp. 208-12.

Sultan by one of the conspirators and he seized Asád u'd-Dín and put him to death with all his family and confederates. The Sultan was not satisfied with the death of the conspirators but he sent an officer to Gawálior to put to death Khizr Khán, Shádí Khán and Shiháb u'd-Dín, the sons of 'Alá' u'd-Dín Khaljí, who had already been blinded by his previous orders. Thus he put an end to all his rivals to the throne.¹ As Khizr Khán was one of the most devoted disciples of the Shaykh, the King thought that he was implicated in the plot against him in order to place his disciple on the throne; and from that time he began to bear grudge against him. He tried to lower the Shaykh in the estimation of the people, ordered his officers not to visit his monastery, and, as a sign of open hostility, he invited Shaykh u'l-Islam Rukn u'd-Dín of Multán to Delhi, and set up another saint named Shaykh Záda-Jám as a rival of Nizám u'd-Dín at Delhi. He went so far as to declare a reward of one thousand gold *tankas* to any man who would bring him the head of the Awliyá.²

At this time Hasan was sent by the Awliyá to Shaykh Ziyá u'd-Dín Rúmi, the spiritual director of Quṭb u'd-Dín, with a message asking him to request the Sultan to cease his persecutions. But Hasan could not deliver the message to him as Shaykh Rúmi was confined to bed with an attack of colic. He died of this illness a few days after Hasan's arrival, and his death put an end to any hope which Nizám u'd-Dín had of his intercession.³ The King was obdurate in his determination to humiliate the Awliyá and he ordered him to attend the court in person and make obeisance at the beginning of every month. The Shaykh refused to comply with this order, and the King intended to use this refusal as a pretext for wreaking vengeance upon him. But before the day fixed for his attendance at the court, the murder of the Sultan by the Barwar rebels saved the Shaykh from this personal humiliation.

After the murder of Quṭb u'd-Dín when Khusraw Khán usurped the throne, he distributed gold to different saints in order to get their moral support; some of them accepted his offers and some refused. A sum of five hundred thousand *tankas* was given to Nizám u'd-Dín, which he accepted and distributed among the poor.⁴ When Sultan Ghiyás u'd-Dín

¹ Baraní, pp. 393-94.

² *Ibid.*, p. 396.

³ S.A., Or. 215, f. 142.

⁴ *Ibid.*, Or. 215, f. 154a. The question may be raised why the saint being a man of strong moral character and always professing to be free from worldly temptation, accepted the ill-gotten money from Khusraw Khán. The principle on which he acts on such occasions may be gathered from his views on 'Income and expenditure', expressed in one of the discourses of the *Fawá'id u'l-Fu'ád* where he says: 'A man should not beg of anything; neither should he speak out nor think in his mind that so-and-so would give him a certain thing. But if a thing is offered to

Tughlaq had overpowered Khusraw Khán and ascended the throne he wished to recover all the money distributed by the usurper. All the Shaykhs but Nizám u'd-Dín, who retained the money in safe custody to return it to its lawful owner, complied with the demand of the Sultan. But Nizám u'd-Dín, having spent the whole amount on the poor could not do so. He replied: 'It was a public property which had gone to the deserving ones. I have not spent a single farthing of it on my account.'¹ This incident had brought about a strained relationship between the King and the Shaykh. The King, at the instigation of some of his enemies, brought a charge of heresy against him for performing *Samá'* (ecstatic dance) accompanied by music, which is against the canon of orthodoxy. He was brought before an assembly of the doctors of divinity, where he was asked to explain his conduct. After some discussions, the Sultan was convinced of the legality of *Samá'* and he was allowed to go free.² But the King did not forgive him for his inability to return the money received from Khusraw Khán to the public treasury, and this strained feeling grew more tense when Prince Muḥammad Jawna became a great admirer and disciple of the Shaykh. It is narrated by Ibn Baṭuṭa how on one occasion the Shaykh in a state of ecstasy said to the Prince, 'We give you the Kingdom'.³ These reports of the Prince's association with the Shaykh must have been carried to the Sultan and inflamed his wrath. While the Emperor was returning from his Bengal expedition, he issued an order asking the Shaykh to quit Delhi before his entry into the capital. The Shaykh is said to have replied to this message, '*(Ḥanūz Dīhlī Dūr ast)*' 'Delhi is still far off'.⁴ It so happened that the King was killed by the collapse of a new pavilion built for his reception at Afghánpúr near Tughlaqábád, and he could not return to the capital.⁵ The death of the King is popularly

him without being asked and hoped for, then it is lawful to him. A certain great man has said "I never ask for a thing nor do I entertain any hope from any one but whoever offers me a thing I accept it even if the donor be a Satan".' (F.F., Or. 1806, f. 23.)

¹ S.A., Or. 215, f. 154b.

² S. Aul., Or. 1746, ff. 132-33. Ḥasan also refers to the accusations made by the Shaykh's enemies for performing *Samá'* in A.H. 720, the year when Ghiyāṣ u'd-Dín Tughlaq ascended the throne. (F.F., Or. 1806, f. 125a.)

³ Ibn Baṭuṭa, Vol. II, p. 39. مَبْنَا لَكَ الْمَلَكُ

⁴ A.H.G., p. 862.

⁵ Baranī, p. 452. Some of the historians suspect that the fall of the pavilion was designed by Muḥammad Tughlaq. Badáúnī and Nizám u'd-Dín accuse Baranī for the suppression of this fact which he did not mention for fear of Firúz-Sháh's displeasure. But Ibn Baṭuṭa (Vol. II, pp. 39-40) states on the authority of an eye-witness, Shaykh Rukn u'd-Dín, that the pavilion was constructed with materials of timber by Ahmad Ayáz, the Inspector of buildings, in such a way that it would collapse at any

ascribed to the displeasure of the saint and his reply on this occasion is still used as a proverb in India.¹ The Awliyá also died a short time before the death of Ghiyás u'd-Dín, on Wednesday, the 17th of *Rabí* II, A.H. 725 (A.D. 1325).²

After the death of Nizám u'd-Dín Awliyá, we do not hear anything further of Hasan's activities. His biographers have nothing to say on this period of his life except that at the time of the transference of the capital from Delhi he was forced by Sultán Muhammad Tughlaq to migrate to Dawlatábád, where he died. It is quite probable that during this period of his old age he was leading a life of devotion in complete seclusion from the troubles of the world. And as he led the life of a bachelor he left no issue to continue his lineage.³ The only heritage he has left to the world consists of his melodious lyrics, of which the poet himself says:—

زر ذخیره ماند و سیم از هر کسی⁴

از حسن اوصاف خوبان یادگار

'Every person leaves behind him a store of silver and gold

Hasan leaves behind him the description of the lovely ones.'

II. HIS WORKS.

His extant works.—According to Ziyá Baraní⁵ Amír Hasan was the author of several Díváns and a number of Maṣnavís and other prose works. This statement has also been affirmed by several of the biographers and historians of the later period.⁶

moment if elephants were allowed to trot on one of its sides. The whole reception was arranged by the prince and as soon as the elephants were brought for display, the entire building fell on the King and thus compassed his death. This account of Ibn Baṭṭa confirms the suspicions of Badáúní and Nizám. Besides this we find that Ayáz was elevated from the position of an Inspector of buildings to that of the minister as soon as prince Muhammad became king.

¹ Prof. Habib in his *Life of Amír Khusraw* is inclined to disbelieve the story of the strained relationship between the Shaykh and the Sultan Ghiyás u'd-Dín. He calls it a later-day fabrication. But from the facts and the narrative of Ibn Baṭṭa stated above it appears that there were sufficient reasons for the existence of strained relationship between them.

The Glossary of the Tribes and Castes of the Panjab (Vol. I, pp. 492-93) wrongly attributes this unhappy incident to Emperor Jalál u'd-Dín Khalji. It was not Nizám u'd-Dín but Sidi Mawla with whom Jalál u'd-Dín had some unpleasant relation. (*Vide* Baraní, pp. 208-212.)

² S.A., Or. 215, f. 158.

³ S.A., Or. 213, f. 22b.

⁴ D.H., I.O.L., f. 155b.

⁵ Baraní, p. 360.

⁶ *Firishta*, Vol. I, p. 214; *J.N.U.*, p. 712.

But none of them give definitely the exact number of his works. The extant works are, his *Díván* and the prose book known as the *Favá'id u'l-Fu'ád*. He is also said to have written another prose work entitled *Siyar u'l-Awliyá* (lives of saints), and Taqí Káshí ascribes to him a commentary on some of the *Qaṣidas* of Kháqání.¹ The only *Díván* known to us was compiled by him when he was sixty years of age, and contains only that portion of his work that was written during the thirty years,² preceding 714 A.H. (A.D. 1314), the date of its completion. The works produced during a period of another twenty years of his life, except for a small piece of prose, *Marghiya*, written on the death of Khán-i-Shahíd, the eldest son of Balban, have not come down to us. His extant works also fail to throw light on the nature of his earlier compositions. The *Díván* in its present form also might have been lost to us, since the poet himself says that he had no intention of collecting these poems until he was persuaded to undertake it by the insistence of his friends and associates.³

There are eighteen⁴ known manuscripts of the *Díván* of Hasan, preserved in the various libraries of Europe and the East. Four are in the Bodleian Library, Oxford; five in the library of the India Office; two in the British Museum, and one in each of the libraries of Manchester, St. Petersburg, Munich, Berlin, Gotha, Bankipore and Oudh. No attempt to publish the manuscripts has ever been made in the West, except that Nathaniel Bland has published ten select Ghazals of Hasan in his 'Century of Persian Ghazals' in A.D. 1851.⁵ I give below a chronological table of these manuscripts in order to facilitate reference to various libraries and to give guidance in the compilation of a standard text on a scientific basis in the future.

¹ K.A.Z.A., I.O.L. No. 667, f. 541a.

² D.H., I.O.L., f. 2a. در عهد حیاتی آنچه مدت سی سال جمع شده بود دیوانی تمام شده است - اکنون اتفاق آن شده بود که اندرین سال از جواهر زواهر غیبی و لالی لاری در سلک کلک آمده نثار اصحاب فضل و ارباب حکمت گردانیده اند - امید آنکه بعین عنایت نظر فرمایند

³ D.H., I.O.L., f. 2a. که اغلب حدود چند دوستان بود و بمدد همت و همنشینی که این صحائف ترتیب یافت اگر نه بنده را تکلیفات نباشد و اشعار شاعری رسمی را مراعات نکند

⁴ To this we may add the five MSS. of Hyderabad, brought to our notice after the completion of this thesis.

⁵ An edition of the *Díván* based on the five MSS. of Hyderabad has been lithographed at Hyderabad in 1933 A.D.

No.	Catalogue mark of the MSS.	Date.	
		<i>A.H.</i>	<i>A.D.</i>
1	Elliot 121, Bodl. Lib., Oxford	839 =	1435
2	Ouseley 122, Bodl. Lib., Oxford	862 =	1458
3	Ryland Library Pers. MSS. 855, Manchester ..	913 =	1507
4	Or. 10918, Br. Museum	919 =	1513
5	Add. 24952, Br. Museum	922 =	1526
6	J. Aumor, Cat. Pers. MSS. 66, Munich	941 =	1534
7	I.O.L., No. 1223	943 =	1536
8	Bankipore Public Library, No. 132	1025 =	1616
9	Thurston 15, Bodl. Lib., Oxford	1033 =	1623
10	Berlin Cat. Pers. MSS. No. 836	1056 =	1646
11	Elliot 57, Bodl. Lib., Oxford	—	—
12	I.O.L., No. 1224	—	—
13	I.O.L., No. 1225	—	—
14	I.O.L., No. 1226	—	—
15	I.O.L., No. 1227	—	—
16	St. Petersburg Public Library, No. CD	—	—
17	Gotha Pers. MSS. No. 43-44	—	—
18	Sprenger, Oudh Cat. No. 247	—	—

Of all the MSS. referred to in the above table the Bodleian Library possesses two of the earliest copies yet discovered. But of these two, the earliest one is defective and incomplete.¹ The other copy,² which is about twenty-three years younger than the preceding one, contains the largest collection of verses that has ever been met with in any copy of the *Diván*. Besides the *Qasidas*, *Ghazals*, *Qit'as*, *Rubá'is* and a few short *Magnavis* found in almost all the existing copies, it has a romantic *Magnavi* called *Hikáyat-i-'Ashiq-i-Nágurí*, a pleasing love-poem which will be discussed later. Among the other MSS., the British Museum, India Office and the Bankipore copies contain the largest collection of poems, corresponding almost to the Bodleian copy with a slight variation in the order of arrangement.

Contents of the Diván.—A comparison of the available copies of the *Diván* shows that it consists of a little over ten thousand couplets containing *Qasidas*, *Ghazals*, *Qit'as*, *Rubá'is*, *Magnavis* and *Hikáyat*. Let us now consider the different forms of his poetry.

Qasidas.—In most versions the *Diván* opens with a *Qasida* in praise of God with the following initial verse:—

ای حاکم جهان و جهان داور حکیم
محدث همه بدائع و تو مبدع قدیم

¹ Elliot 121, Bodl. Library.

² Ouseley 121, Bodl. Library.

'O, Lord of the universe, and the wise Judge of the world,
Everything is a creation and Thou art the eternal source.'

But the copy of the Bankipore *Diván* opens with a *Qaṣída* called *Khamṣin*, which is not to be found in other copies. It begins with the couplet ¹:—

ای بصفِ صنع تو پویان شده چرخ برین
این کره جز داغ تسلیمت ندارد بر جبین

'O, Thou, in the line of Thy handiwork revolves the crystalline sphere,
This colt possesses on its brow nothing but a brand of submission to Thee.'

In this *Qaṣída* the poet gives three reasons for calling it a *Khamṣin*: it consists of fifty verses; it was composed in the fiftieth year of his age; and thirdly it contains the names of fifty holy men through whose intercession he supplicates for favour from God. After this *Qaṣída* begins the usual *Qaṣída* with the initial verse mentioned above corresponding with the copies mentioned in Rieu, p. 618, Sprenger Oudh Cat., p. 418; *Éthe Bodl. Cat. No. 780-81*; *I.O.L. No. 1223*, and other catalogues.

There are about one hundred *Qaṣidas*,² one-fourth of which are devoted to the praise of God and the Prophet, and to moral and religious topics; the rest of the poems, with the exception of a very few, are written in honour of Sultan 'Alá'u'd-Dín Khaljī, the reigning sovereign of the time, and the principal patron of the poet. Four *Qaṣidas* are addressed to Ulugh Khán, the brother of the Sultan, and one each to prince Khizr Khán and Sultan Rukn u'd-Dín Ibráhím Sháh³ respectively.

These poems deal mainly with the pomp and power of 'Alá'u'd-Dín and the achievements of his reign; in them the

¹ C.P.B., Vol. I, p. 197. I have not been able to procure a copy of this *Diván* in England, so I had to rely for all these informations on the description given in the catalogue of the Library. This copy was transcribed in A.H. 1010 = A.D. 1601 for Shaykh Farid Bukhārī, a general of Akbar. In the second hemistich of the couplet quoted above the word

•ك is transcribed in the catalogue as •گر. But the word •كر gives no sense, so I read it as •ك which I think is a better reading.

² The Hyderabad edition of the *Diván* of Ḥasan contains 161 *Qaṣidas*.

³ Rukn u'd-Dín Qadr Khán was the youngest son of Sultan Jalál u'd-Dín Khaljī who occupied the throne of Delhi for a short period of five months after the murder of Jalál u'd-Dín in 695 A.H. = 1295 A.D. (Baranī, p. 238).

monarch is given equal rank with Alexander the Great in his campaigns, and is extolled as a champion of orthodoxy in his efforts to suppress heresy. But one of the greatest defects of these poems, if I am allowed to say so, is that they are devoid of any chronological data. The poet speaks of contemporary events, but never assigns any date to them. The only dates that we come across are the dates of the composition of two of his poems, one in praise of God and the other in praise of the Prophet, which are assigned to A.H. 703¹ (A.D. 1303), and A.H. 707² (A.D. 1307) respectively. These dates do not throw any light on the historical events of his time, but simply points to a period of his life when he was engaged in composing these *Qasidas*. To a student of history his *Qasidas* are entirely disappointing.

The style of his *Qasidas* is rather simple and unadorned. The words used are always clear and intelligible to the reader. Although he sometimes aspired to attain the fame of Kháqání as he hints in the following verses in one of the *Qasidas* addressed to Ulugh Khán,

روزگار شه و خان غیرت خاقان آمد
گفته بنده حسن غیرت خاقانی باد

‘The Kháqán is jealous of the fortune of the King and the Khán

May the poetry of Hasan excite jealousy of Kháqání,’

he has carefully avoided the use of obscure and ambiguous words for which Kháqání is notorious. He wrote one *Qasida* in reply to one of Kháqání’s poems known as

قصیده فی التزام العید فی کل بیت

(*Qasida* in which the use of the word ‘*Íd*’ has been made in every couplet). The head line of this poem runs:—

فی موسم العید باسم سلطان الاعظم فی مجابات سلطان الشعرا

افضل الدين الخاقانی زيد فیضه *

‘On the occasion of ‘*Íd*, dedicated to the great King, in answer to the King of poets Afzal u’d-Dín-al-Kháqání (may his excellence increase).’

¹ D.H., I.O.L., 1223 f. 3a.

² *Ibid.*, f. 4b.

³ D.H., Add. 24, 952, f. 28a.

⁴ K.K., pp. 325–29.

⁵ D.H., Bodl. (Ouseley 122), f. 57.

The poem opens with the verses:—

ساقیا می ده که مهر می کده بکشاد عید
کرد جانها را بجام شادی افزا شاد عید

'O, Sáqí, give wine because the 'fíd has opened the seal
of the tavern,
The festival has made the souls happy with the joy-
increasing cup.'

Wherein Hasan differs from other Panegyrists.—Hasan differs from most of the other Persian panegyrists in that he never employs mean and despicable methods to extort money, or has recourse to satire when panegyric fails. He was always satisfied with his lot and would give thanks to his patron for whatever reward he had received. Submission to the will of God was the main principle of his life as he declares in one of his *Qasidas*:—

در روزی چون آسمان دارد بر در عمر و زید چون گذرم¹
چه شکایت کنم ز دور فلک هر چه هست از قضا و از قدرم

'When the door of my sustenance is in heaven,
Why should I go to the door of 'Amr and Zayd.
What complaint shall I make against the revolution of
the sky,
Whatever befalls me is from Divine decree and will.'

The general trend of his poems shows that the art of *Qasida* writing did not appeal to his genius. It is probably due to this reason, more than to anything else, that the number of his *Qasidas*, in spite of his long service at the court of several Kings, is so small in comparison with the number of his lyrical poems. His dislike for this type of poem is also to a certain extent due to the influence of his spiritual guide who used to detest panegyrics and considered the use of high-sounding laudatory terms as an abuse of poetic genius.²

Ghazals.—There are nearly eight hundred *Ghazals* written by Ḥasan, each consisting of not less than five and not more than twelve couplets.³ The reputation of the poet rests mainly on these poems and he is considered as one of the earliest masters of this form of poetry.

Development of Ghazal before Hasan.—The *Ghazal* or the love poems of Persia may be said to be an offshoot of the *Qasida*

¹ D.H., I.O.L., f. 6a.

² F.F., Or. 1806, f. 126a.

³ The Hyderabad edition of the *Diván* contains 809 *Ghazals*.

or panegyrics, which form the beginning of Persian poetry. The main differences between these two forms of verse are in the subject-matter and in the length of the poem. The subject of a *Ghazal* is generally erotic and mystical, and seldom exceeds a dozen couplets, whereas a *Qaṣīda* may be a panegyric, or a satire, or it may be didactic, philosophical or religious, often extending to more than a hundred couplets. A *Qaṣīda* generally begins with the description of a beautiful object or of the poet's beloved, which is technically called *Tashbīb* or Exordium, and then the poet introduces his *Mamdūh* (the object of praise) and enters into the *Madīha* or panegyric proper. The *Tashbīb* is the basic principle of a *Ghazal*. This element of the beautiful has been transferred to *Ghazal* and it became the chief feature of this form of poetry. In a *Qaṣīda* the poet praises the liberality, the pomp, the power, and the justice of his patron, whereas in a *Ghazal* he describes the beauty, the coquetry, the oppression, and the tyranny of his beloved. In the early stage of its development there was no appreciable improvement; it lacked that enthusiasm and emotion which we find in the works of the later poets. For a long time in Persia the composition of *Qaṣīdas* was considered to be the best accomplishment of a poet, and it was the only means of gaining favour and honour at the royal courts. Consequently, the poets had to devote all their attentions and energies to the composition of this form of poetry, and the writing of *Ghazal* was neglected.

It is with the growth of Sūfism that a distinct improvement was made in the composition of *Ghazal*. The element of love, being one of the fundamental principles of this system of mystic philosophy, had found its best vehicle of expression in the medium of lyric poetry. The *Divān-i-Shams-i-Tabrīz*¹ of Mawlānā Jalāl u'd-Dīn-Rūmī is one of the best examples of mystic lyrics that has ever been written in Persian. Hakīm Sanā'ī, Awḥadī-Marāghī, Farīd u'd-Dīn 'Attār, and 'Irāqī, had also made their contribution towards the development of mystic poetry. But the *Ghazals* written by them were smaller than their other forms of poetry, and the love that they extolled was divine rather than human.

The Mongol invasion of Persia with the destruction of the Caliphate, which is considered as the great turning point in the history of Islamic civilization, brought about a great change in the sphere of Persian literature and culture. From this time we find a different trend of thought in Persian poetry. The enthusiasm which the poets displayed in the composition of *Qaṣīdas* celebrating the power and conquests of Persian monarchs has received a great setback and we do not find eminent *Qaṣīda* writers in the post-Mongol period worthy of being compared

¹ An excellent selection of this *Divān* has been published with a translation by Prof. Nicholson of Cambridge.

to those of pre-Mongol days. The poetry produced during this period generally contained a certain mournful and melancholy strain, as if something of vital importance had been missing from the soul of the nation, which it always yearns to regain. The expression of this mental agony revealed itself in lyrical poetry, and produced some of the greatest masters of poetic art, of whom Persia has ever been able to boast. The *Ghazal* has received the greatest attention from the Persian singers and a remarkable development has since been made.

Sa'dí is the fore-runner of this movement. After him come Ḥasan, Khusrāw, Salmán, Khvájú and Ḥáfiz, in whom the Persian *Ghazal* has reached its highest perfection. Each of these poets had been greatly influenced by Sa'dí and they recognized him as a great master of lyrical poetry, and Ḥáfiz has said:—

¹ استاد غزل سعدی ست پیش همه کس اما
دارد سخن حافظ طرز و روشِ خواجو

‘Before all persons Sa'dí is the master of Ghazal but,
The poetry of Ḥáfiz has the style and manner of
Khvájú.’

Influence of Sa'dí on Ḥasan.—The *Ghazals* of Ḥasan were greatly influenced by the works of Sa'dí in their style and thought. It is due to this similarity of ideas and diction in these two poets that Ḥasan was called by his contemporaries the Sa'dí of Hindustán.²

Sometimes we come across parallel passages conveying an idea common to both but expressed in different forms. I quote here a few of these verses:—

Sa'dí—

³ بدم گفتمی و خرسندم عفاک الله نکو گفتمی
سگم خواندی و خشنودم جزاک الله کرم کردی

‘Thou didst speak me ill and I am content: God pardon
thee, thou didst speak well!

Thou didst call me a dog, and I acquiesced: God reward
thee thou didst confer on me a favour!’

¹ S.N., Vol. V, p. 38.

² Barani, p. 360. In one sense Ḥasan may be said to be a contemporary of Sa'dí, as the latter lived up to A.H. 691 = 1291, when Ḥasan was forty years old.

³ *Tayyibát*, Bib. Ind., p. 469. The first verse of this couplet is also used by Ḥáfiz as a *Tazmín* in one of his poems (*vide* D.H.B., Ode No. 8).

Hasan—

گر سگی کوی خودم خواند شی¹
والله آن شب روز بازار منست

'If for a night she calls me a dog of her lane
By God that night would be my brisk market.'

Sa'di—

دوستان عیب کنندم که چرا دل بتو دادم²
باید اول بتو گفتن که چنین خوب چرائی

'My friends blame me for yielding my heart to thee,
Thou shouldst be questioned first "Why art thou so
lovely?"'

Hasan—

گفتی که حسن دلت چه ارزد³
از غمزه بپرس من چه دانم

'Thou hast asked, "Hasan! what is the value of thy
heart?"
What do I know, ask thy amorous glance.'

Influence of Jalāl u'd-Dīn Rūmī.—In the mystical odes of Hasan we find some influence of the works of Jalāl u'd-Dīn Rūmī. The poet has not made any direct acknowledgment of his indebtedness to this great Persian mystic, but from a careful search we find some of the ideas of Rūmī to have been expressed by Hasan in a different form. I give here the following parallel passages:—

Rūmī—

سینه خواهم شرحه شرحه از فراق⁴
تا بگویم شرح درد اشتیاق

'I want a heart torn to pieces by separation
So that I may unfold (to it) the pain of love-desire.'

¹ D.H., I.O.L., f. 996.

² *Tayyibāt*, Bib. Ind., p. 464. Most texts give *منع* instead of *عیب* in verse I of this couplet.

³ D.H., I.O.L., f. 14.

⁴ *Magnavī*, G.M.S., Bk. I, p. 3.

Hasan—

هر دل که چون چراغ نمی سوزد از فراق¹
او را چه روشن ست که سوز فراق چیست

‘The heart that is not burning like a lamp by separation
How can it understand the burning (pangs) of severance’

Rúmi—

اگر تو عاشقِ عشقی و عشق را جويا²
بگیر خنجر تیز و ببر گلوئِ حيا

‘If thou art Love’s lover and seekest love
Take a keen poniard and cut the throat of bashfulness.’

Hasan—

بتغ عشق شو کشته حسن وار³
اگر خواهی بقائِ جاودانی

‘Get thyself killed like Hasan, with the sword of Love
If thou desirest eternal permanence.’

Rúmi—

گفت لیلی را خلیفه کآن توی⁴ کر تو مجنون شد پریشان و غوی
از دگر خوبان تو افزون نیستی گفت خامش چون تو مجنون نیستی

‘The Caliph said to Laylá: “Art thou she
By whom Majnún was distracted and led astray?
Thou art not superior to other fair ones.”
“Be silent” she replied “Since thou art not Majnún”’.

Hasan—

مدعی گفت بلیلی بطعن (؟)⁵ رو که چنان چابک و موزون نه
لیلی ازین حرف بخندید و گفت با تو چه گویم که تو مجنون نه

¹ D.H., I.O.L., f. 90a.

² *Diván-i-Shamsi-Tabríz*, Ed. Nicholson, p. 2.

³ D.H., I.O.L., f. 217b.

⁴ *Maṣnavi*, G.M.S., Text, Book I, p. 26 and Nicholson’s translation, p. 25.

⁵ D.H., I.O.L., f. 208b.

'A boaster said to Laylá in reproach
 "Go, thou art not so nimble and graceful"
 Laylá laughed at this and said
 "What shall I tell thee, since thou art not Majnún".'

Influence of Hasan on his successors.—Among the successors of Hasan in the field of Persian poetry, we find two who are imitators of his style. One is Kamál of Khujand¹ and the other Zamírí of Ispahán. The former is accused by some critics as a plagiarist of Hasan. Jámí says: 'Kamál imitates Hasan Dihlavi, but his poems contain more of mystical ideas than those of Hasan. On account of this imitation, he was called a plagiarist of Hasan.'² The charge of plagiarism made against him by his critics is rather too severe. A comparison of his *Diván*³ with that of Hasan does not reveal any serious evidence to substantiate it. The style and language of Kamál shows clearly the influence of Hasan, but the two poets differ a great deal in their thoughts and ideas. Kamál is more of a mystic than Hasan. Zamírí,⁴ whose full name is Kamál u'd-Dín Husayn, flourished in the court of Sháh Tahmásp (reigned A.H. 930-984 = 1524-76) the Safaví King. He has composed a Divan consisting of Ghazals in imitation of Hasan under the title of Hasan

Ma'al (حسن مآل). The author of the *Makhzan u'l-Ghará'ib* and the *Ātish-Kadah* speak very highly of his abilities as a poet of original and imitative composition. He is also said to have been highly proficient in the art of necromancy.

Influence of Hasan on Háfiz.—In the poetry of Háfiz also we find some influence of Hasan; but Háfiz has made no direct acknowledgment of any indebtedness to Hasan. On the other hand, he says that his poetry bears resemblance to the style and diction of Khvájú of Kirmán. The only reference that he

¹ His full name is Kamál u'd-Dín b. Mas'úd. He was a great saint and a mystic poet of the latter part of the eighth century of the Hijra. The Jalá'irí Sultan Husayn bin Uways (776-784 = 1374-82) showed him much favour and built for him a monastery. He is said to have died in A.H. 803 = A.D. 1400-1. (Vide J.N.U., pp. 712-13, L.H.P., Vol. III. pp. 320-30.)

² *Baháristán*, p. 100.

³ Add. 19,496.

⁴ This poet was a prolific writer. He is the author of six *Magnavís*, viz. *Názva-Niyáz*, *Hasnat u'l-Akhhár*, *Vámiq-va-'Azzá*, *Laylá-Majnún*, *Bahár-va-Khazán* and *Iskandar-Námah*, and of seven *Diváns* of Ghazals, viz. '*Ishq-i-Bízavál*, *Kanz u'l-Aqvál*, *Surat-i-Hál-i-Safína-i-Iqbál*, *Sa'iqat-i-Malál*, '*Uzz-i-Magál*, *Quds-i-Khíyál*'; four other *Diváns* in imitation of Sa'di's *Tayyibát*, *Badd'í*, *Khvátim*, and *Ghazliyyát*, viz. *Badd'á-u's-Shi'r*, *Saná-i-Táhirát*, *Niháyat-u's-Sihr*; and another *Diván* called '*Ayun u'l-Zulál*'; and of thirteen similar *Diváns* in imitation of those of Bába Fighání, Jámí, Lisání, Sháhi of Sabzvár, Baná-i of Herát, Bába Sháhídi of Qum, Amír Humáyun, Mirza Sharaf Jahán of Qazvín, Kamál Khujandí, Amír Khusrav and Amír Hasan. (Vide M.G., Or. 4610, f. 259.)

makes of Indo-Persian poets is to be found in the following verses sent to Sultan Ghiyás ud-Dín of Bengal:—

شگر شکن شوند همه طوطیان هند¹
 زین قند پارسی که به بنگاله میرود

‘All the parrots of India become sugar-breakers
 Through this Persian candy which is going to Bengal.’

The word *Tuti-i-Hind* or the parrot of India may be applied only to two of the Indo-Persian poets—Ḥasan and his contemporary Khusraw. Jámí has referred to them in the same way in the following verses²:—

آن دو طوطی که بنوخیزی شان بود در هند شکر ریزی شان
 عاقبت سخره افلاک شدند خامشان قفس خاک شدند

‘Those two parrots with tender growth,
 Who filled Hindustán with sugar,
 Became at last a mark for the arrow of the sky,
 And were silenced and imprisoned in the cage of earth.’

Ḥasan also styles himself a parrot of eloquence in one of his odes in the following verses³:—

مرا که طوطی باغ بلاغت ست لقب
 شدم ز مائده شکر شاه شکر چین

‘I, who possess the title of “the parrot of the garden
 of eloquence”
 Have become a pecker of sugar at the table of gratitude
 of the King.’

In another place he says⁴:—

کنون مبارک بادت هوای هندوستان
 که طوطیان را آموختی شکر خوردن (؟)

‘Now may the atmosphere of India be auspicious to thee,
 As thou hast taught the parrots to peck sugar.’

¹ D.H.B., No. 158.

² Badáúní, Vol. I, p. 201.

³ D.H., I.O.L., f. 42b.

⁴ D.H., I.O.L., f. 202.

The reference of Háfiz to the parrots of India indubitably shows that he was familiar with the works of these great Indo-Persian poets and particularly with the *Ghazals* of Hasan, which exerted a certain influence on his poetry. I quote below some of the parallel passages which are to be found in their *Diváns*:—

I. *Hasan* ¹—

رخ تو آفت شهر آمد و آشوب سپاه
قصه ما و تو شهری و سپاهی دانست

‘Thy face became the calamity of the city and torment
of the army
Our story became known to the citizen and the soldier.’

Háfiz ²—

فغان کین لولیان شوخ شیرین کار شهر آشوب
چنان بردند صبر از دل که ترکان خوان بغا را

‘Alas! these saucy dainty ones, sweet of work, the tor-
ment of the city,
Take patience from the heart just as the men of
Turkistán take the tray of plunder.’

II. *Hasan*—

‘ بیا ساقی هنوز آهستگی چیست
که اینک گل بخندید ابر بگرس

‘Come Sáqí, what is this hesitation?
Because the rose smiled and the cloud wept.’

Háfiz—

‘خوشت ز عیش و صحبت باغ و بهار چیست
ساقی بکاست گو سبب انتظار چیست

‘What is there more pleasant than the enjoyment of the
garden and the spring,
Where is the Sáqí? say what’s the cause of waiting?’

¹ *Ibid.*, f. 79b.

² D.H.B., No. 8.

³ D.H., I.O.L., f. 89.

⁴ D.H.B., No. 55.

III. *Hasan*—

اگر ساقی تو خواهی بود ما را¹
 که می گوید که می خوردن حرام است

'If thou becomest our Sâqí,
 Who says that drinking is unlawful?'

Háfiz—

در مذهب ما باده حلال است و لیکن²
 بی روی تو ای سرو گل اندام حرام است

'Wine is lawful in our creed but
 Without thy face, O rose bodied cypress, it is unlawful.'

IV. *Hasan*—

روی که تراست مه ندارد نقصان بتو هیچ ره ندارد³
 این کوکبه که هم تو داری خورشید نداشت مه ندارد

'The moon hath not a face like thee,
 To thee there is no decline;
 The splendour which thou hast
 Neither the sun nor the moon doth possess.'

Háfiz—

روشنی طلعت تو ماه ندارد پیش تو گل رونق گیاه ندارد⁴
 گوشه ابروی تست منزل جانم خوشتر ازین گوشه پادشاه ندارد

'The moon hath not the brightness of thy face,
 In thy presence the rose hath not (even) the splendour
 of the grass,
 The corner of thy eyebrow is the dwelling of my soul,
 The King hath not a happier corner than this.'

¹ D.H., I.O.L., f. 98a.

² D.H.B., No. 34.

³ D.H. Add. 24952, f. 113.

⁴ D.H.B., No. 171.

V. *Hasan*—

¹ چه رویت آن که گوی نو بهار است
 غلط کردم بهشت روزگار است
 بنقد امروز با او در بهشتم
 مرا با نسیه فردا چه کار است

'What is that face? thou wouldst say that it is the new
 spring,
 I am wrong, it is the paradise of the world.
 To-day in cash I am in paradise with her.
 What use have I for the credit of the morrow.'

Háfiz—

² کنون که می دمد از بوستان نسیم بهشت
 من و شراب فرح بخش و یار حور سرشت

 چمن حکایت اردی بهشت می گوید
 نه عارفست که نسیه خرید و نقد بهشت

'Now that the breeze of paradise bloweth from the rose
 garden
 I and the joygiving wine and the Houri natured beloved
 (are together)
 The sword uttereth the tale of the month of spring
 No gnostic is he who purchased a loan and let go the
 cash.'

Ghazals of Hasan quoted in different Anthologies.—Besides
 the poetical extracts quoted by the biographers, we find that
 his *Ghazals* have been profusely quoted in a number of antho-
 logies. A list of those, available in the libraries of Great Britain,
 is given below:

- (1) An anthology of mixed contents (A.H. 813) prepared
 for Jalál u'd-Dín Iskandar B.'Umar-Shaykh, a
 grandson of Tímúr who ruled over Fars as a vassal
 of his uncle Sháh Rukh. Add. 27,261.

¹ D.H., I.O.L., f. 83.

² D.H.B., No. 60.

- (2) Anthology (10th century A.H.) belonging to a Turkish noble named Khálid Beg. Add. 7,824.
- (3) Anonymous anthology (10th century A.H.), Or. 1228.
- (4) Anonymous anthology (1200 A.H.). Add. 19,494.
- (5) Anonymous anthology (10th century A.H.). Add. 7,796.
- (6) Anthology (A.H. 1153) prepared by Mírza 'Abdu'l Qádir Bídil. Add. 16,803.

Besides these there are four other undated anthologies in the Berlin Library of Persian MSS. (Nos. 58, 83, 681, 685), which cite a number of his poems.

The poems cited in these anthologies correspond to the *Ghazals* contained in the Bodleian, the British Museum and the India Office copies of his *Diván*. These anthologies except that of Mírzá Bídil, do not add to our knowledge of his poems. Mírzá Bídil ascribes one *Mukhammas* or Fivesome poem to Ḥasan.¹ But it seems that this poem has been wrongly attributed to him. According to the rules of Persian prosody very often the basis of this type of poem is a *Ghazal* of some other poet, to each couplet of which three more 'mišrá's' or half verses are added to make a *Mukhammas*. Now this poem of doubtful authenticity is based on a *Ghazal* of Ḥáfiz which opens with the verse:

² تاب بنفشه میدهد طرّه مشکسای تو
 پرده غنچه میدرد³ عارض دلکشای تو

Ḥasan being a predecessor of Ḥáfiz could not possibly have utilized his *Ghazal* as a basis of this *Mukhammas*. So Mírzá Bídil is fundamentally wrong in ascribing this poem to Ḥasan. It must have been written by some other person who was either a contemporary or successor of Ḥáfiz.

Style of his Ghazals.—The special features of Ḥasan's style consist in its simplicity and a natural flow of language, combined with sweet and harmonious rhythm. The metres employed are invariably short and attractive to the ear. The words he uses are generally concise and plain and belong to the every-day ordinary vocabulary of the people. The entire absence of obscure metaphors and far-fetched images has made his poems very popular among his contemporaries. Both contemporary and later-day critics are unanimous in praise of the beauty of his style and diction. I quote here the opinion of two of the critics of two different periods. One is Ziyá Baraní, who says

¹ *Bayáz*, Add. 16,803, ff. 375-76.

² D.H.B. No. 472.

³ Some texts read as خنده

'He was an accomplished master in the simplicity of style and flow of diction, and as he has composed many a mystic ode in a flowing style, he is called the Sa'dí of Hindustán.'¹ The other is Jámí, a great mystic poet and a biographer of the fifteenth century A.D., who speaks of Ḥasan's style in the following words:² 'His *Ghazals* have some distinctive features; he was very particular in the choice of metres and rhymes, which are the peculiar beauty of his poetry. This careful selection gives his poems a special colouring, so much indeed that they appear to be very simple, while actually they require much art and labour to compose. Therefore people have called his poetry easy but difficult to compose.'

Are the Ghazals to be interpreted in Súfistic sense?—It may be asked whether the odes of Ḥasan are to be taken in a literal or Súfistic sense. This question does not admit of a general answer. There are a number of odes which may be interpreted in a figurative or allegorical sense, and there are others which may be better understood and appreciated in a literal sense. The number of the latter class is considerably larger than the former. The poet, however, desires us to take the inner meaning of his verses and interpret his love as '*Ishq-i-Ḥaqiqi*' or love divine. He says:

طریق سهل میندار عشق بازی ما
حقیقت ست غم عاشق مجازی نیست

'Think not the way of our love's sport to be easy
The pangs of love are divine, not profane.'

ای حسن ما ز اهل تحقیق گرچه ظاهر ز اهل تحقیریم

'O Ḥasan! We belong to the people of Truth
Although outwardly we are of the despised.'

There are poems, which reveal the poet's leaning towards the Súfistic doctrine of *Faná-Filláh* or the passing of the unreal into the real self in order that it may be re-united with the one infinite Being; these poems, of course, answer directly to the above claim made by the poet. But the erotic ideas which permeate most of his odes, outweigh the element of sufism displayed in others, and a comprehensive survey shows him as an erotic rather than a Súfi poet. It is, however, not to be supposed that the erotic poems of Ḥasan give expression to the cult of a

¹ Baraní, p. 360.

² *Baháristán*, p. 101.

³ D.H., I.O.L., f. 104.

⁴ *Ibid.*, f. 141.

reckless libertine for the gratification of sensual pleasure. They contain high and noble sentiments expressed with appropriate dignity of manner. The poet holds an ideal of beauty before his mental vision and tries to draw a picture of that ideal with the aid of his lively fancy and powerful imagination. The beauty of nature appeals to him most. He holds it up to great admiration and thereby admires the Creator, who is himself the supreme of Beauty.

The Popularity of his Ghazals.—The *Ghazals* of Hasan gained great popularity, not only among his contemporaries, but also among the poets of the succeeding generations. His achievement of considerable celebrity during his lifetime has been referred to by the poet himself in the following verses:

از نظم حسن دیدم شهری شده دیوانه
زیراکه نبی بینند این طرز بدیوانها

'I find the city mad with Ḥasan's verse,
For they find not such elegance in other *Diváns*.'

Besides the testimony of his contemporary scholars (to which I have already referred), we have other evidence from the writings of Persian poets and biographers which points clearly to the popularity of his poems even beyond the land of his birth. The popularity of his works may be best judged from a consideration of the opinions of the Persian critics and of the reception they obtained in Persia, a land where Indo-Persian poetry is seldom appreciated, unless it is of a very high order. Dawlat-Sháh in his *Memoirs of Persian poets* says,² 'The *Diván* of Khvāja Hasan is very highly admired in these days; and the men of learning and discernment attach an unlimited esteem to his poetry. As his poems are very well known to the high and the low, I am not going to quote here more than one of his *Ghazals*.' Taqí Káshí, another biographer of the tenth century of the Hijra, says,³ 'His *Diván* is highly honoured and respected, and the men of understanding and good taste place great confidence in his poems. His verses enjoy a great reputation among the people.' We find such evidence of the popularity of his poems in Persia even during the reign of Sháh Tahmásp (A.D. 930-34) the Šafaví King; and during the reign of this monarch, Zamírí, the court poet of the time, wrote a *Diván* in imitation of Ḥasan.

Among the Indo-Persian scholars of the later period his *Ghazals* enjoyed a very great amount of popularity, and they

¹ D.H., Add. 24,952, f. 38b.

² T.S.D., p. 248.

³ K.A.Z.A., I.O.L., No. 667, f. 541a.

were placed on the same level as those of other great masters of the Persian lyric, Sa'dí, Khusraw and Háfiz. He was regarded as a past master of Persian songs and many a poet would have considered himself fortunate if he could have secured the blessing of his approbation. An instance of such a desire is found in one of the poems of Shaykh Násir u'd-Dín-Gharib¹ of Delhi:

سرود عیش ز گفتار من کند مطرب²
 ره سماع ز اشعار من زند قوال
 اگر بفارس رود کاروان اشعارم
 روان سعدی و حافظ کنند استقبال
 و گریه هند رسد خسرو و حسن گویند
 که ای غریب جهان مرجبا تعال تعال

'The minstrel would play the tune of joy with my lay,
 The mystic-singer would dance in ecstasy with my
 verse;
 If the Caravan of my poetry were to travel to Persia
 The souls of Sa'dí and Háfiz would greet it.
 If it reached Hindustán, Khusraw and Hasan would
 say
 O, Gharib of the World, Hail to thee! Come, come.'

Character of his Ghazals.—Hasan's *Ghazals* have a certain distinctive feature of their own. His poems are generally pervaded by an emotional frenzy and a burning enthusiasm which are not to be found to the same extent in the writings of his predecessor Sa'dí and his contemporary Khusraw. In the poems of Sa'dí and Khusraw, no doubt, there is an element of high emotion, but when we consider their work as a whole, this element appears very small among the tame and gentle expressions which preponderate in the majority of their poems. Hasan, as a lyric poet, excels them both by his greater enthusiasm and his deeper inspiration manifested in vigorous and impressive language. Another distinctive characteristic of his *Ghazal* is the presence of a single idea running through the whole poem. As a general rule every couplet in a *Ghazal* expresses a complete idea, independent of what has gone before or what comes after;

¹ Gharib was the poetical name of Shaykh Násir u'd-Dín. He was a native of Khurásán, migrated to India during the reign of Humáyun. He is the author of a *Díván* in Persian. (*Vide Riyáz-u's-Shu'arâ*, Add. 16,729, f. 318b; and Beale, p. 140.)

² Anonymous anthology, Add. 7796, f. 47.

but Ḥasan has often deviated from this convention and we find some of his poems with a single idea running throughout.¹

III. HIS MINOR POEMS.

Qit'a or fragments.—The *Qit'a* or Fragmentary poems of Ḥasan consists of twenty pieces. One of these is addressed to 'Alá'u'd-Dín Khaljī, and two other poems to Ulugh Khán. Of the rest, some describe the beauties and pleasure of spring, and some are devoted to moral topics and satire of the selfish devotees.

Rubá'í.—The *Rubá'í's* or quatrains written by Ḥasan are much fewer than his *Ghazals*. The earliest available manuscript ² of his *Diván* contains 137 poems of this type and the contents of the later copies vary but none exceeds this number.

Of these poems, twenty-five are addressed to Sultan 'Alá'u'd-Dín, five to prince Khizr Khán, and the rest are devoted to prayer and love. The general trend of his love-quatrains, with a few exceptions is erotic rather than mystical.

Magnaví.—The *Magnaví* poems of Ḥasan are devoted to three distinct types of subjects—eulogistic, moral and romantic. All these poems, except the single romantic one, are short and disconnected pieces, written on different occasions, probably in his leisure hours which he wanted to employ in composition on lighter themes. These small poems do not reveal that amount of burning pathos and frenzy of feeling which we see in his *Ghazals* and the romantic *Magnaví*. They are purely descriptive and didactic.

The eulogistic *Magnaví* poems are devoted to the following topics:—

- (1) A general description of the power and might of Sultan 'Alá'u'd-Dín.
- (2) In commemoration of the suppression of a mutiny in A.H. 700.
- (3) Advent of the spring.
- (4) In praise of the Imperial sword.
- (5) On the birth of a prince.
- (6) On the occasion of proclaiming Khizr Khán as an heir-apparent.
- (7) The marriage of the prince.
- (8) In praise of Ulugh Khán.
- (9) In praise of Shaykh Nizám u'd-Dín Awliyá.
- (10) Three other poems in praise of his learned companions.

¹ Khusraw has also written a number of such poems, which have been cited by Shibli. (*Vide* S.N., Vol. II, pp. 162–67.) For want of space none of these *Ghazals* could be included here.

² Bodl. MS. (Ouseley) 122.

Of the *Magnaví* poems on moral topics, the extant manuscript contains only seven. These poems are written after the model of Sa'di's *Bustán* in which the poet tells certain stories or relates some sayings of a great man and then moralizes on them according to his own light and judgment. Although the number of these poems is very small, they provide interesting reading and throw some light on the ascetic temperament of the poet.

The Romantic Magnaví.—The romantic *Magnaví* of Hasan, known as the '*Ishq-Námah*, or the *Hikáyat-i-'Ashiq-i-Nágúrí* (Book of love or the story of the lover of Nágúr¹), is a short love-poem consisting of six hundred and six couplets. The whole book, as the poet himself says, was composed during a single night on Monday, the first of *Zú'l-Hijjah*, A.H. 700 (A.D. 1301).² The metre used here is the apocopated hexametre *Hajaz* (v.../v.../v...).

The poem is modelled on the romance of Laylá and Majnún of Nizámí of Ganja, which is one of the most popular love-stories in the East, and particularly in India. Khusraw, the contemporary of our poet, had also written on the same theme of romance, and he had composed five *Magnavís* of this type, collectively known as *Panj-Ganj* (Five Treasures), dealing with the same legends as those of Nizámí. But our poet did not follow his predecessors blindly. There is no doubt that he is indebted to Nizámí for the main idea of his poem, but he has selected a theme of his own. The old Persian legends, which had been worn threadbare by other writers, did not afford sufficient scope for his imagination. He wanted to discover a new field for his poetic interpretation, and he found it in the Hindu tales. So he selected one of the love stories of his homeland and struck out a new departure. The episode, he says, is not an invention of his imagination but a story well known in the country.³

نه از خود كردم اين افسانه منظوم

كه مشهور ست اين قصه دران بوم

'This story was not weaved out of my own fancy,
It is a story well known in that country.'

¹ Nágúr is the name of an old city of Eastern Rájputana, which now forms a part of Jodhpur State. (*Vide* Imperial Gazetteer of India, Vol. XVIII.)

² D.H., Bodl. (Ouseley, No. 122), f. 282

بكردم اندرين چند تفكر سواد بكشبه بود اين همه در

سال هفصد اين در شد نموده دوشنبه غره ذوالحجه بوده

³ D.H., Bodl., f. 282.

This was rather a bold step on his part to depict the ideal nature of love from the life-story of a young Hindu couple, which was not likely to be well received by the orthodox opinion of the time. The poet anticipated this danger before he began the book, so he replies to this possible charge of heresy in the concluding verses of his poem in the following way¹:—

اشعار عاشق کاریست جانی زکفر و دین برونست این معانی

‘The verse of love is a theme of the soul
It soars beyond faith and infidelity.’

IV. HIS PROSE WORKS.

The prose works of Ḥasan that have survived to us are the *Favá'id u'l-Fu'ád*, and a short *Marghiya* written on the death of Khán-i-Shahíd, the eldest son of Sultan Balban. Another work entitled *Siyar u'l-Awliyá*, or Lives of Saints, is said to have been written by him, but this book seems to have been lost.

Favá'id u'l-Fu'ád.—The *Favá'id u'l-Fu'ád* is a collection of discourses of his spiritual guide Shaykh Nizám u'd-Dín Awliyá, made in a number of meetings from the year A.H. 707 to 722² (A.D. 1308–1322). The custom of the Shaykh was to hold occasional assemblies of his disciples at which he used to discourse on various topics connected with religion, mysticism, and other matters relating to the life of devotees. Most of these discourses are illustrated by anecdotes, largely drawn from his personal experience and reminiscence. These discourses were carefully noted down by Ḥasan and finally published under the above title, with the approval of the Shaykh. At the completion of each chapter the author used to show it to his spiritual guide for his opinion, and we find that on each occasion he received high approbation for his faithful and systematic reproduction of all the sayings of the Shaykh.

In the opening chapter of the book the author gives the following account of the method of his collection and the reason why he called it *Favá'id u'l-Fu'ád*³:—

‘These heavenly gems and indubitable ornaments have been collected from the treasure-house of instruction and the secret chamber of infallibility of the Master of rectitude, entitled “The mercy of the universe, the King of the poor and the helpless, Nizám u'l-Haqq-al Shar'al-Hudá-al-Dín” (May the mercy of God be upon him). Whatever has reached my ears either in the actual form or in its general significance from that lamp of divine assemblage, I have written down according to my simple

¹ D.H., Bodl. (Ouseley) 122, f. 282.

² The Encyclopedia of Islam is wrong in stating that these discourses were made from A.H. 717 to 722.

³ F.F., Or. 1805, f. 2.

understanding; and as the minds of afflicted persons would derive benefit from this compendium, so I have named it *Favá'id u'l-Fu'ád* (The benefits of the soul).'

The main divisions of the book.—The book is divided into two separate parts. The first part consists of four chapters containing the discourses made during a period of twelve lunar years from the third of *Sha'bán* A.H. 707 to the twenty-third of *Rajab* A.H. 719¹ = A.D. 1307–1319. It was completed, as stated at the end of this part, on Tuesday the second of *Shawwál* A.H. 719² = A.D. 1319. Each of these four chapters is devoted to a fixed period of time: the first chapter contains the discourses made during A.H. 707–709 (A.D. 1307–1309) and consists of thirty-four discourses; the second from A.H. 709 to 712 (A.D. 1309–1312) and consists of thirty-seven discourses; the third from A.H. 712 to 714 (A.D. 1312–1314) and consists of seventeen discourses; the fourth from A.H. 714 to 719 (A.D. 1314–1319) consisting of sixty-seven discourses. The second part contains thirty-two discourses delivered during a period of three years from the twenty-first of *Sha'bán* A.H. 719 (A.D. 1319) to the nineteenth of *Sha'bán* A.H. 722 (A.D. 1322). This part was completed on the twentieth day of the month of the later year, as the author says in the following verses³:—

چون بهتصد فرود بیست و دو سال
 بیستم روز از ماه شعبان
 از اشارت خواجه جمع آمد
 این بشارت ده فتوح جهان
 شیخ ما چون محمد آمد نام
 حسن اندر ثناء او حسن

'When twenty and two was added to seven hundred
 On the twentieth day of the month of *Sha'bán*,
 Was compiled at the command of the Khwāja
 This giver of happy tidings of the conquest of the
 world.

The fame of our Shaykh is like Muḥammad
 And Ḥasan in his eulogy like Hassán.⁴

¹ F.F., Or. 1806, f. 110. Rieu suggests this date to be the 5th of *Jamád II*, which is evidently wrong.

² *Ibid.*, f. 111.

³ F.F., Or. 1806, f. 132.

⁴ Hassán-ibn-Sabit was one of the Arabian poets who espoused the cause of the Prophet. The family to which he belonged had the greatest

In the concluding paragraph of the second part,¹ the author said that he would present us with another volume of the discourses that would be made after the year 722 A.H. The Shaykh lived up to A.H. 725 and Ḥasan survived him a few years more but we are not in possession of information as to whether anything was written by him during the last days of his life.

V. BIBLIOGRAPHICAL LIST OF AUTHORITIES AND ABBREVIATIONS.

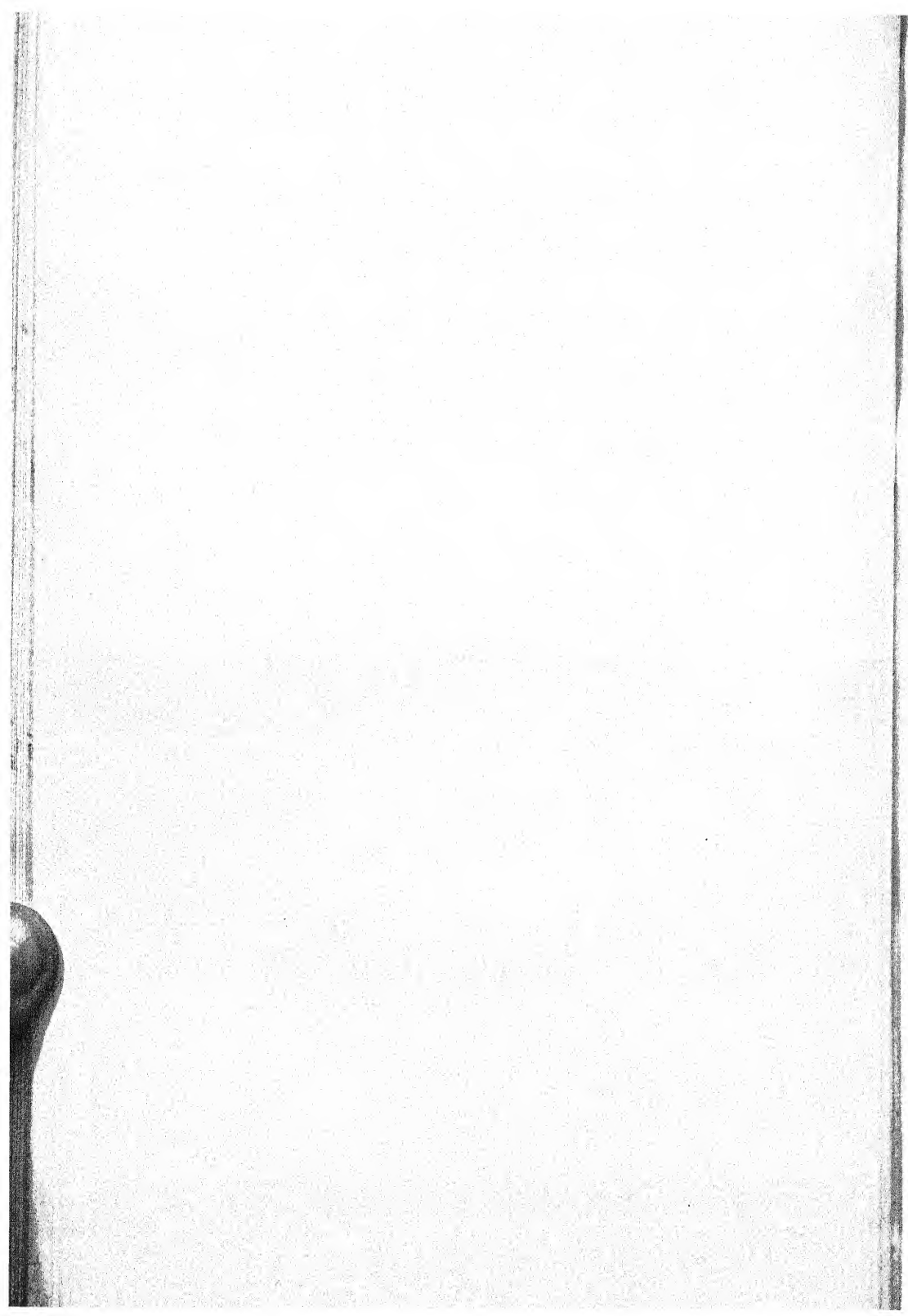
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skill in poetry, for it produced six persons, in succession, all of them poets. (*Vide* Ibn-i-Khallikán’s Biographical Dictionary, ed. by De Slane, Vol. III, p. 347 and Vol. IV, p. 259.)

¹ F.F., Or. 1806, f. 132.

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Futūhāt-i-Firūzshāhī.

By N. B. Roy.

(Communicated by Dr. Bainī Prashad.)

Sultān Firūzshāh Tughluq (752-790 A.H., 1351-1388 A.D.), one of the most enlightened rulers of the Tughluq dynasty, is described by Khwājah Nizāmuddīn Aḥmad Bakḥshī in the *Ṭabaqāt-i-Akbarī* as:—

این بادشاه عدالت پناه ضوابط عدل و احسان و قواعد امن
و امان بسیار در میان خلق گذاشت ¹

The earlier part of the history of his reign was dealt with in fair detail by Diyā-uddīn Barnī in his *Tārīkh-i-Firūzshāhī*,² but after the death of this author, as no competent historian could carry on the work, the Sultān himself composed a pamphlet containing 'the *res gestae* of his reign, or, as he designates them his "victories", and had these engraved on the walls of the *Kūshk-i-Shikār*, on the dome of the *Kūshk-i-Nuzūl* and the minaret of the stone mansion at Firūzābād.³ In another place of the same work (p. 20), however, 'Afif has remarked that the Sultān had caused to be inscribed the history on the lofty tower of the *Kūshk-i-Nuzūl* which was erected in front of the royal court. Nizāmuddīn Aḥmad,⁴ however, states that the history was inscribed on the eight sides of the dome of the Jāmī' Masjid.

Manuscripts of this historical work of Sultān Firūz, which served as one of the sources of Nizāmuddīn Aḥmad's *Ṭabaqāt* and Firishtah's History, are very rare. Sir Henry Elliot was unable to obtain any copy, but Professor Dowson was able to include an almost complete translation of it in Volume III of Elliot's *History* from a unique manuscript belonging to Mr. E. Thomas.⁵ Apparently this is the manuscript which is listed

¹ B. De's edition of the text in the *Bibliotheca Indica* Series, Vol. I, p. 238 (1927); see also the English translation of the work in the same series by the same author, Vol. I, p. 256 (1927).

² For details regarding this work, see Prashad, B., *Journ. Roy. Asiat. Soc. Bengal*, Vol. IV (Letters), p. 785 (1938).

³ Shams Sirāj 'Afif's *Tārīkh-i-Firūzshāhī*, *Bibliotheca Indica*, edited by Vilāyat Ḥusain, p. 177 (1888-91).

⁴ *Op. cit.*, text, p. 239, English translation, p. 257.

⁵ *History of India*, Vol. III, p. 374 (1871).

by Rieu¹ in the Catalogue of Persian Manuscripts in the British Museum (Or. 2039) and which is wrongly stated to have been transcribed for the use of Sir Henry Elliot from a manuscript dated 1139 A.H., under 'the supervision of Nayyir Rakhshān² (Diyā'uddīn Khān)'; this conclusion is based on a notice, dated Shāhjahānābād, July, 1853, at the end of the manuscript. The other known manuscript³ of the work is in the collection of the 'Aligarh University and forms like the British Museum manuscript an appendix of a manuscript of 'Afif's *Tārīkh-i-Firūzshāhī*. According to the colophon it was copied by Diyā'uddīn at Mount Abu on 12th Shawwāl 1299 A.H. (27th August, 1882). The contents of the two manuscripts, so far as they can be judged from a study of the English translation of the British Museum manuscript and the copy of the 'Aligarh manuscript, are almost identical; both of them constitute an appendix to 'Afif's *Tārīkh-i-Firūzshāhī*, and whereas the former was copied under the supervision of Nawwāb Diyā'uddīn Ahmad Khān of Lohārū, the latter was apparently copied by the Nawwāb himself.

The question of the authorship of this work need not be discussed at length. The independent testimony of authors like 'Afif and Nizāmuddīn Ahmad leaves no doubt about the Sultān having prepared an account of his accomplishments in a work entitled *Futūhāt-i-Firūzshāhī*; manuscripts of this work were current under this name in the sixteenth century; while the style of composition and the contents of the work fully confirm its authorship by Sultān Firūz.

Hodivala⁴ recently suggested the probability of the existence of more than one recension of this work. He bases his conclusion on the inventory of the public works of Firūz and the reference to the administration of poison to him by his enemies detailed in the *Tabaqāt-i-Akbarī*, and which are not to be found in the English translation of the *Futūhāt* by Dowson.⁵ Against this view it may be urged that Nizāmuddīn⁶ does not state definitely that he based his account entirely on the

¹ Rieu, C., *Cat. Persian MSS. in the British Museum*, III, p. 920 (1883).

² Nawwāb Diyā'uddīn Ahmad Khān of Lohārū. He was a well-known scholar of Persian and Urdū and wrote under the pen names of *Nayyir* in Persian and *Rakhshān* in Urdū. According to Sī Rām, the author of *Khumkhāna'-i-Jāwīd* (Vol. III, p. 378, 1917), he helped Sir Henry Elliot materially in collecting information for his famous History. He died in 1302 A.H. (1884 A.D.).

³ A manuscript is stated to be in the collection of Khān Bahādūr Zafar Hasan, but I have not been able to secure it for collation with the 'Aligarh manuscript.

⁴ Hodivala, S. H., *Studies in Indo-Islamic History*, p. 344 (1939).

⁵ Elliot's *History of India*, Vol. III, pp. 374-388 (1871).

⁶ *Loc. cit.*, text, p. 241, translation, p. 260.

Futūhāt. In fact his statement¹ that 'whatever (information) could be obtained about the construction of buildings and his beneficent foundations, is detailed here', leaves little doubt that the account is a summary of all available information. In regard to the inventories of the works, it may further be noted that the figures as given by Nizāmuddīn differ very materially from those of Firishtah.² It appears certain, therefore, that the figures in the two works could not have been taken from the same source but were independent estimates of the two historians. In this connection a reference may also be made to Thomas³ who was of the opinion that Nizāmuddīn's totals 'though not obviously exaggerated as Ferishta's are clearly fanciful'. The suspicion about the inaccuracy of these figures is also confirmed by the fact that they are not mentioned in any of the contemporary works such as 'Afif's History, *Sirat-i-Firūzshāhi* and *Munsh'āt-i-Māhrū*. In view of the above facts it is not necessary to postulate a second recension of the *Futūhāt* until one is discovered.

From the literary point of view, this work has distinctive merits. It is written in a very simple style and is singularly free from the verbiage of words which is a dominant feature of contemporary literary works such as 'Afif's *Tārīkh-i-Firūzshāhi*, *Sirat-i-Firūzshāhi* and *Munsh'āt-i-Māhrū*. It also differs strikingly from the usual type of insipid, pompous royal manifestoes, and is free of conventional phrases and phraseologies. On the other hand, the work is full of life and vigour and in its pages the Sultān pours forth the innermost feelings of his heart and attempts to make known to his subjects and successors his endless efforts in the path of righteousness, as he conceived it.

The historical importance of this royal work cannot be exaggerated. Like the inscriptions of the Emperor Asoka, it echoes to us the thoughts and feelings that animated the Sultān. He devoted his kingly power and all efforts to the extirpation of various sects and denominations that had arisen in Islām, for example the *Shī'ahs*, the *Mulhids* and the *Idāhātīs*, to the suppression of many innovations, unlawful and forbidden practices that had crept into the religious observances, to the proselytization of the large Hindu population by persuasion and the remission of the *Jizya*, and to the destruction of the new, if not the old temples built by the Hindūs. He used all his efforts for the purification of the Faith and for the application

¹ B. De's translation of the passage:

آنچه از بنای عمارات و بقاع خیر او یافته شد باین شرح است .

does not convey the exact sense of the original.

² *Tārīkh-i-Firishtah*, Bombay Lith. Edn., Vol. I, pp. 272, 273 (1832).

³ Thomas, E., *Chronicles of the Pathan Kings of Delhi*, p. 291 (1871).

of the principles enjoined by Islām in connection with administrative matters. He gave up the usual royal ways of living and adopted a simple, religious life. He discarded the purple and scarlet robes and cast aside the gold and silver vases, cups, plates and jugs which were used on the royal table. The paintings and portraits that adorned the inner apartments of the Sultān's palace were torn down from the walls, while the carvings and effigies were obliterated from the walls of the palaces, other buildings, etc. Various practices which were contrary to the laws of Islām were interdicted. The visit of Muslim women to the tombs of saints and recluses was banned. Mutilation, tortures and various types of hair-raising, cruel punishments were done away with. Oppressive cesses which were wrung from the subjects were abolished; Madrasas and hospitals were built and an extensive programme for digging canals and tree-planting was organized. All these measures confirm the Sultān's deep concern and solicitude for his subjects. It is a pity, however, that the beneficent rule of this benevolent and religious king was marred by his bigoted persecution of Shīaism and the image worship of the Hindūs in their newly erected temples.

With a view to making this important and rare manuscript ¹ easily available to students of Indian History, I have prepared a carefully revised edition of the text of the 'Aligarh manuscript based on a copy prepared for Dr. Raghunath Singh, the heir-apparent of the Sitamau State in Central India. My sincere thanks are due to Dr. Singh for his kindness in allowing me the use of this valuable copy, and to Prof. M. Mahfūz-ul-Haq for his invaluable help in editing the text. In view of material inaccuracies in Dowson's translation referred to already, I had also prepared an English translation, but the authorities of the Royal Asiatic Society of Bengal could not, on the score of the increased cost of printing, agree to its publication, more particularly as Dowson's translation is sufficiently accurate in regard to the historical facts detailed in the *Futūhāt*.

¹ According to Storey, *Persian Literature—A Bibliographical Survey*, p. 509 (1939), an edition of the *Futūhāt* was published at Delhi in 1885, but I have not succeeded in securing a copy from any source.

فتوحاتِ فیروز شاهی

یا فَتَّاحُ

بِسْمِ اللَّهِ الرَّحْمَنِ الرَّحِيمِ

حمدِ بیحد و شکرِ بیعد مر خالقِ غفورِ مشکور را که
 منِ بیچارهٔ مسکین، فیروز بن رجب، غلامِ محمد شاه بن تغلق شاه
 را باحیای سننِ سنیّه و قلعِ بدعات و دفعِ منکرات و منعِ محرمات
 و تحرّیص بر ادای فرائض و واجبات توفیقِ رفیقِ بخشید -
 و صَلَوَاتِ بیشمار بر سیدِ کائنات که برای دفعِ رسوم و عادات
 مبعوث شد، بُعِثَ لِرَفْعِ الرُّسُومِ وَ الْإِعَادَاتِ، صَلَّى اللَّهُ عَلَيْهِ
 وَسَلَّمَ، و بر آل و اصحابِ او که به سعیِ جمیلِ ایشان مراسمِ
 جاهلیت مرتفع شد، رِضْوَانُ اللَّهِ تَعَالَى عَلَيْهِمْ أَجْمَعِينَ -
 اما بعد چون اظهارِ شکرِ نعمتی که از معطیٰ حقیقی عطا شده باشد
 که وَ التَّحَدُّثُ بِالنِّعَمِ شُكْرٌ و سیدِ ولدِ آدم صَلَوَاتُ اللَّهِ عَلَيْهِ
 بتحدّثِ نعمت مامور شده، وَ أَمَّا بِنِعْمَةِ رَبِّكَ فَحَدِّثْ - بنده
 مسکینِ مہین را (نعمِ کثیره) ایزد عطا کرده است، خواستم تا بذکر

بعضی عطایای ربّانی شکر آنچه بمن بخشیده است بقدر طاقت بشری ادا
 نمایم، تا مگر در سلکِ بندگانِ شاکرِ نعمت متداخل باشم - از آن
 عطایای خالقِ رازقِ جَلَّ جَلَّالُهُ وَ عَمَّ نَوَالُهُ یکی آنست که بدعتها
 و منکراتِ شرع در ممالکِ هندوستان شایع شده بود و مردم را
 عادت و طبیعت گشته و از سُنَنِ سَنِّیه انحراف نموده بودند،
 حق تعالی توفیقِ رفیقِ این بندهٔ مسکینِ خویش گردانیده منع بدعات
 و دفعِ منکرات و قلعِ محرمات بر خود واجب دید، و سعی جمیل
 نمود تا بعون و نصرتِ حق مرسومِ باطله و معتادِ خلافِ شرع بکلی
 مندفع گشت و حق از باطل جدا شد *

اول آنست که در عهدِ ماضیه بسی خونِ مسلمانان ریخته
 شدی، و انواعِ تعذیب از بریدنِ دست و پا و گوش و بینی
 و کشیدنِ چشم و ریختنِ آرزیزِ گداخته در حلق و شکستنِ
 استخوانهای دست و پا به میخکوب، و سوختنِ اندام به آتشی،
 و زدنِ میخها بر دست و پا و سینه، و کشیدنِ پوست و زدنِ
 درها با میخهای آهنی، و بریدنِ پی، و دو نیم کردنِ آدمی بآره
 و بسیار انواعِ مثله کردن واقع می شد - اکرم الاکرمین ارحم

الْراحِمین این بندهٔ امیدوارِ کرمِ خود را بر دل متمکن گردانیده
تا همتِ والا نهمت بر آن مصروف داشت که خون مسلمانانِ بناحق
ریخته نه گردد و بهیچ نوع تعذیب نباشد و هیچ آدمی را مثله
نکنند، * بیت *

چگونه شکر این نعمت گزارم که زورِ مردم آزاری ندارم
اینهمه که میکردند تا آنکه رعب در خاطرِ مردم بهم افتد و خوف
در دلبها غالب گردد و امورِ سلطنت منتظم ماند و این سخن را
مثلِ خود ساخته بودند، * بیت *

ملک را گر قرار میخوای تیغ را بقرار باید داشت
از فضلِ الهی که در حقِّ من مسکین است آن تشدیدات
و تخویفات برفق و کرم و احسان بدل شد - و خوف و رجا
بدلِ خاص و عام زیادت بر آن جا گرفت، و هیچ احتیاج به قتل
و ضرب و ایلام و تشدید و تعذیب نماند، و این سعادت جز
به فضل و عنایتِ پروردگار میسر نشود:

کرم کن چو دستِ تو بالاتر است که بخشایش از خشم و الاتراست
ترا چون ز باری بزرگی عطا است به تعجیلِ رسمِ سیاست خطاست
گر اول توقف کنی در قصاص توان گشت او را که بدهی خلاص

و لیکن چو قالب پراگنده گشت نیارد بفرمانِ تو زنده گشت
نگه کن که تا مادرِ مهرِ سنج بر آن طفلِ خود چند برده است رنج
مگو، مَرَدِ گُشتم صد اندر نبرد یکی زنده کن تات خوانند مرد
چو بر خود نداری روا نشتری مگش تیغ بر گردنِ دیگری
مکوش اندر آن کر تنی خون رود که جان باز نآید چو بیرون رود
بخوریزِ خلقِ مشو فتنه دوست ترا نیز خوینست آخر بیوست
هزار آفرین بر چنان رهنمون که پیشِ بزرگان نکوشد بخون
زدولابِ چرخ آنکسان رابست آب که ایشان نیارند در خون شتاب
چو دشمنِ زبون کرده احسان بکن¹ بقدرتِ جوانمردمی جان بکن

از عونِ الهی دل برین قرار گرفت که خونِ مسلم را
و عرضِ مؤمن را امانی کُلی باشد، و هر که از راهِ شرع برگردد
بر حکمِ کتاب (و) قضای قاضی بچیزی که مستحقِ آنست برسد،
اَلْحَمْدُ لِلّٰهِ عَلٰی تَوْفِیْقِهِ *

دیگر از فضل و کرمِ حقِ جَلَّ و عَلَا در حقِّ من آنست که
ذکرِ القابِ سلاطینِ ماضیه که از خطبِ جمعه و اعیاد دور شده بود

¹ Text: جان کند - احسان کند.

و نامهای آن پادشاهان اسلام که بيمينِ همت و برکتِ نهمتِ ایشان
 بلادِ کفار فتح شد و اعلام (بر) هر دیاری مظفر گشت و معابد
 اصنام خرابی پذیرفت و مساجد و منابر معمور و مرتفع گشت
 و اعلاى کلبه طيّه شد و اهلِ اسلام قوی و حریبان ذمی گشتند
 نسیاً منسیاً گشته بود، گفتم برسمِ معهود چنانچه بود القاب و اوصافِ
 همه در خطبها بخوانند و ایشان را بمغفرت یاد آرند، * بیت *

چو خواهی که نامت بود جاودان مکن نامِ نیکِ بزرگانِ نهان

دیگر از ایادی هادی، عَزَّ اسْمُهُ آست که از عهد ماضی
 وجوهاتِ باطله نامشروع و حرام در بیت المال جمع میکردند
 چنانکه مندوی برگ، دلالت بازارها، (و) جزّاری (و) امیرئی
 طرب و گلفروشی، و جزیه سیول، و چنگی غله و کتاب بیلگری،
 و ماهی فروشی، و ندافی، و صابونگری، و ریسان فروشی
 و روغن گری و نخود بریان و ته بازاری و جیبه¹ و قمار خانه
 و دادبگی² و کوتوالی و احتسابی و کاهی و چرائی و صادرات
 این جمله را از دفاتر دیوان گفتم که دور کنند و عمالِ ولایت

¹ Text: وجه.² Text: دادنیکی.

هرکه این وجوهات را از خلق بستاند و جمع آرد بجزا و سزای
آن برسد،
* بیت *

دلِ دوستان جمع بهتر، که گنجِ خزانه تهی به که مردم برنج
مالی که از بیت المال جمع آید، همان وجوهات (باشد) که در شرع
مُصْطَفٰی صَلَّی اللّٰهُ عَلَیْهِ وَاٰلِهٖ وَسَلَّمَ آمده است و کتبِ دینیهِ بدان
ناطق است، یکی خراجِ اراضی و عشور و زکوة و دیگر جزیه
هنود و دیگر ترکات، دیگر خمسِ غنائم و معادن، و وجهی که
جمع کردنِ آن بحکمِ کتاب درست نباشد بهیچ وجه در بیت المال
جمع نکنند *

دیگر آنست که پیش ازین رسم و عادات بافشای بدعت
چنین شده بود که از غنائم چهار خُمس بدیوان جمع میکردند
و خُمس به غازیان میدادند و حکمِ شرع اینست که خُمس در
بیت المال جمع کنند و چهار خُمس به غازیان قسمت کنند
و بدهند، در حکم این عکسِ تام راه یافته بود، چون حکم
بر قسمتِ شرع نشود این غنائم را هرکه تصرف کند مرتکبِ حرام
شده باشد، و هر برده که ازو فرزند زاید ولد الزنا باشد، برای دفعِ

این گفتم که خُمس در بیت المال جمع کنند و چهار خُمس به غازیان دهند *

دیگر شیعی مذهبان که ایشان را روافض میگویند، بمذهبِ رفضِ شیعه مردم را دعوت میکردند و رساله‌ها و کتابها درین مذهب پرداخته و تعلیم و تدریس پیشه ساخته بودند و شیخین را رَضِیَ اللّٰهُ عَنْهُمَا سَبِّ صریح و شتمِ قبیح میگفتند، همه را گرفتیم و بر ایشان ضلال و اضلال ثابت شد، غالیان را سیاست فرمودیم و دیگران را به تعزیر و تهدید و تشدید زجر کردیم *

دیگر طائفه ملحدان و اباحتیان جمع شده بودند و خلق را به الحاد و اباحت دعوت می‌کردند و در شیئی معین و مقامی متعین جمع می‌شدند از مردمانِ محرم و غیر محرم و طعام و شراب در میان می‌آوردند و میگفتند این عبادتست، و صورتی ساخته مردمان را درین فعل می‌آوردند که پیشِ آن سجده بکنند و زنان و مادران و خواهران (در) شب جمع می‌آوردند، جامه‌هرکه بر دستِ کسی از ایشان می‌افتادی با او زنا کردی - پیرانِ ایشانرا

سرها بریدم و دیگران را حبس و جلا و تعزیر فرمودم تا شَرِّ ایشان از حَوْزَه¹ اسلام بکلی مندفع گشت *

دیگر قومی بلباسِ دهریه و ترک و تجرید مردمان را گمراه میکردند (و) مرید میساختند و کلمات کفر می گفتند، آن گمراهان را احمد بهاری نام مرشدی بود و در شهر ساکن و طائفه از بهار او را خدا میگفتند - آنجماعت را مقید و مسلسل نزد ما آوردند - او سَبِّ نبی میکند و میگوید که کسیکه نه حرم (دارد) چه جلالت نبوتِ او باشد و از یکی مریدانِ او این معنی بر ایشان ثابت شد - هر دو را به قید و زنجیر سیاست فرمودیم - و دیگران را به توبه و انابت امر کردیم، و هر یکی را بهر شهری جلا کردیم تا شَرِّ این جماعتِ پریشان دفع شد *

دیگر در شهرِ دهلی شخصی رکن نام لقب مهدی گفته که مهدی آخر الزمان منم، مرا علمِ لدنی حاصل شده است، و من از پیشِ کسی تعلیم و استفاده نکرده ام، و اسمای جمیع مخلوقات که آن جز آدم نبی عَلَیْهِ السَّلَامُ هیچ پیغمبری (را) علم نبوده است

¹ Text: خورَه.

مرا معلوم شده است، و اسرارِ علمِ حروف که بر هیچ کس
 مکشوف نبود بر من کشف گردیده، و برین ادعا کتابها نوشته
 و خلق را در غوایت و ضلالت استدعا نموده و گفته که رکن الدین
 رسول الله منم - درین سخن مشائخ پیش ما گواهی دادند که
 اینچنین گفته است، و ما ازو شنیدیم - چون او را پیش ما
 آوردند، از حالِ اضلالِ او استفسار کردیم - بدین بدعت
 و ضلالت مقرر بود - علمای دین گفتند او کافر شده است
 و مباح الدّم گشته - چون این فتنه و فساد از نفسِ خبیثِ او
 در اسلام و اهل سنت و جماعت پیدا گشته، اگر در دفعِ آن
 افعال دهند معاذ الله چنان سرایت کند که بسیار مسلم گمراه شوند،
 و از دین اسلام بگردند و ازو فتنه قائم شود، که بسیار مردم
 بدان سبب هلاک گردند - گفتیم تا در مجمعِ علمای عالم فساد
 و افساد و اضلالِ آن خبیث را ندا کنند و بگوشِ خاص و عام
 برسانند و به فتویِ علمای دین و ائمه شریعت مستوجبِ سیاستی
 که باشد به نفاذ رسانند - او را با اشخاصیکه معتقد و مرید
 و مساهمِ او بودند بکشتند و خاص و عام خلق درآمده و گوشت
 و پوست و اعضای او را پاره پاره کردند، و شر او چنان

دفع شد که جهانیان را موجبِ انتباه گشت، و نصرت و عنایتِ الهی در دفعِ انواعِ این شرّ و در قلعِ امثالِ این بدعات حق جَلّ و علا منِ بندهٔ مسکینِ خویش را میسر گردانید و بر احیای سننِ توفیق داد - غرض از ذکرِ ادای شکرِ باری است، (تا) به استماع و مطالعهٔ این محرمات هرکرا اصلاحِ دین خود مطلوب باشد، این طریقه را مسلوک دارد تا مثاب گردد و ما بدلالَتِ این خیر امیدوارِ ثواب باشیم - وَ الْمَوْقِفُ هُوَ اللَّهُ *

دیگر شخصی از ملازادگانِ عینِ ماهرو در عرصهٔ گجرات خود را بشیخی ساخته بود و جمعی را مرید گرفته «انا الحق»، میگفت، و مریدان را می فرمود، چون من «انا الحق»، بگویم، شما گوئید «توئی، توئی»، و میگفت «أَنَا الْمَلِكُ الَّذِي لَا يَمُوتُ» و رسالهٔ نوشته که درو کلماتِ (کفر؟) بود - او را زنجیر کرده پیشِ ما آوردند و برو ثابت شد - او را نیز سیاست فرمودیم و کتابی که ساخته بود بسوختیم تا از میانِ موحدانِ اهل اسلام این فساد نیز دفع شد *

دیگر رسم و عادتِ که در دینِ اسلام جائز نیست در شهرِ مسلمانان شایع شده بود که عورات در آیامِ متبرکه جماعه جماعه

پالکی سوار و گردون سوار و ڈوله سوار و اسپ سوار
و ستور سوار فوج فوج و جوق جوق پیاده از شهر بیرون می آمدند،
بزارها می رفتند و رندان و مردم او باش که بهوای نفس مبتلا اند
و از دیانت عاری (جمع میشدند و) فتنه و فساد که ازین حرکت
باشد پوشیده نیست، میکردند - و بیرون رفتن عورت شرعاً
منهی است، - فرمودیم تا هیچ عورت بزار نه رود، هرکه رود
او را تعزیر کنند - این زمان به عنایت حق جلّ و علا مجال
نیست که محذرات و مستورات مسلمانان بیرون آیند، و به زیارتها
روند - این بدعت نیز منتفی شد ۛ

دیگر از عطایای الهی آنست که هنوز مزماک (؟) و بت پرست
که زر ذمه پذیرفته اند و جزیه قبول کرده و خانمان ایشان مصئون
مانده، بتخانهای جدید در شهر و حوالی بنیاد نهاده بودند و در
شرع نبوی احداث بتخانه روا نه باشد - بتوفیق حضرت اله آن
بناهای فاسد ایشان را خراب کردیم، و ائمه کفر که دیگران را
اضلال می کردند بکشتیم، و عوام ایشان را به تعزیرات زجر کردیم
تا این فساد بکلی افتاد ۛ

دیگر آنست که در موضع ملوه حوضیست که آنرا کُند میگویند، بتخانها ساخته بودند و جماعتی از هنود با اتباع در روز معین بمعتاد¹ کثیر¹ سواران با اسلحه و برگستوانهای بسیار زنان و بچگانِ ایشان پالکی و گردون سوار هزاران هزار جمع میشدند و بت پرستی میکردند - درین فساد چنان غلو کرده بودند که اهل بازار انواع نعمتها در آنجا می بردند و گربزی² کرده می فروختند - طائفه مسلمانان بیداینت بهوای نفس در اجتماعِ ایشان مساهم می شدند - چون این کیفیت بسمع ما رسید بتوفیقِ ربّانی خود برای دفعِ این فساد که مضرتِ آن در دینِ اسلام سرایت میکرد، عزم کردیم و در روزیکه ایشان جمع میشدند آنجا رفتیم و اشخاصیکه پیرِ ایشان بودند و اغوا و اضلال میکردند، فرمودیم تا آنها را بکشند و سائرِ هنود را بتعزیراتِ مولم منع کردیم و بتخانه را خراب کردیم و آنجا مسجد بر آوردیم و قصبات معمور گردانیدیم یکی تغلق پور دوم سدلاپور نام نهادیم - این زمان بجائیکه کافرانِ مزماک (؟) و معبدِ اصنام ساخته بودند از فضلِ باری جَلَّ و عَلَا مسلمانان معبودِ برحق را بجهده میکنند و تکبیر و اذان

¹ Text : یکدیگر .

² Text : با برآوری .

و جماعت قایم میدارند، و آنجا که کفار مسکن خود ساخته بودند
مسلمان ساکن و متوطن گشتند بکلمه لَا إِلَهَ إِلَّا اللَّهُ ذاکر
و رطب اللسان میباشند و اَلْحَمْدُ لِلَّهِ عَلَى الْإِسْلَامِ *

دیگر اخبار کردند که در موضع صالح پور بتخانه جدید
بعضی از هنود عمارت کرده اند، و بت پرستی میکنند - آنجا نیز
کسان فرستادیم تا بتخانه خراب کنند و شرّ آن اشخاص را که در
گمراهی اصرار نموده بودند دفع کردیم *

دیگر آنکه در قصبه گوهانه بعضی از هنود بتخانه جدید
ساخته اند و جماعتی از مشرکان جمع میشوند و بت پرستی میکنند
ایشانرا گرفته پیش ما آوردند - کسانی که ازیشان بنیاد فساد بودند،
فرمودیم تا از حال اضلال شان ندا کنند و پیش در سرای
اعلی بکشند و کتابهای کفر و بتان و اسباب بت پرستی که ایشان
آورده بودند، گفتیم تا در نظر عامه خلق در مقام سیاست بسوزند
و دیگران را به تهدید و تعزیرات منع شد تا انتباه دیگران باشد
و هیچ ذمی در دار اسلام این جرأت نتواند کرد *

دیگر در عهد ماضیه معتاد شده بود اوانی زر و نقره
بوقت خرج مایده استعمال میکردند و بندهای تیغ و چله ترکش

از زر مرصع میساختند، آنرا منع کرده حلیه سلاح خود از استخونهای شکاری ساختیم و باستعمالِ اوانی که در شرع مباح است اعتیاد کردیم *

دیگر در آیام سابقه رسم و عادت برین بود که جامها مصور می کردند و بر وجه تشریف از درگاه سلاطین مردم را می پوشانیدند، و همچنین بر لگام و زین و قلاده مرکب و بجرهای عود و در طاس و قح و کوزه و طشت و آفتابه و در خیمها و پردها و تخت و کرسی و سائر آلات و ادوات صورت می نگاشتند و تمثال می داشتند بهدایت ربّانی و عنایت سبحانی گفتیم جمله صورت و تمثال از جمیع این چیزها دور کنند و آنچه محظور شرع نیست و جائز و مباح است بسازند صورت و تمثال که در دار و جدار و قصور تصویر میکردند، فرمودیم تا جمله را محو کنند *

دیگر پیش ازین اکثر لباس بزرگان از ابریشم و زردوزیهای مغرّق نامشروع بودی - حق سبحانه تعالی توفیق داد تا ملبوسات همچنان شد که در شرع نبوی مباحست و علمهای زردوزی و کلاه و زربفت که عرض آن بقدر چهار اصابع زیادت

نباشد اختیار افتاد، و آنچه نامشروع و ناجائز و منکر و منہی
 شرع بود دور کرده شد **اَلْحَمْدُ لِلّٰهِ عَلَی الْاِسْلَامِ** *

بعضی از مواهبِ الهی این بندۀ بیچاره را عطا شد بر تشبیدِ
 مبانیِ خیراتِ توفیق داد، بسی مساجد و مدارس و خوانق
 بنا کردیم تا علما و مشائخ و زهاد و عباد در آن مقامها معبودِ
 برحق را عبادت کنند و بانیِ خیر را بدعایِ مدد نمایند، و حفرِ
 آبها و غرسِ اشجار و وقفِ اراضی بر نهجِ شرع متفق و مجمع علیه
 است و در ملتِ اسلام علمای شریعت را در وی اجماع است
 و درو شکی و شبہی نه، ادرار معین و سهامِ مصارف معین کردند¹

¹ این واقعه از بیانات تاریخ فیروز شاهی و سیرت فیروز شاهی واضح میشود:

عقیق، مؤلف تاریخ فیروز شاهی میگوید (صفحه ۱۳۰): «آن شہریار دیہای
 بسیار در زمین اموات آبادان گردانیدہ حاصلاتِ آن مقامات باسمِ علما و مشائخ
 معین گردانیدہ و آنرا در سهام معین کردہ.»

و نیز در (صفحه ۱۷۹) زمرہ علما و فرقہ مشائخ و صلحای بلاد و ممالک را

حضرت فیروز شاه بتوفیقِ آله مبلغ سی و شش لک تنکہ تعین کردہ بود *

بر وفقِ سیرت فیروز شاهی (نسخہ خطی سر جدو نانہہ سرکار، صفحه ۲۹۱):

«آن املاک را بسہام معین مصارف تعین گردانید.» *

تا همیشه حاصلِ آن به بندگانِ خدا برسد ذکرِ آن مشروحاً در
وقف نامه مذکور است *

دیگر از مواهبِ الهی یکی آنست که عمارات و بناهای
گذشتگان و سلاطینِ ما تقدّم و امرای ماضیه که بمرورِ ایام و مرورِ
اعوام خلل پذیرفته بود بمرمت و عمارتِ مجددِ بیاراستیم، و استحکامِ
آنها بر عمارتِ خود مقدم داشتیم، چنانچه مسجدِ جامعِ دهلی قدیم
که بنای سلطان معز الدین سام است، جهتِ قدمِ بنا محتاجِ مرمت
و تعمیر شده بود چنان مرمت کرده شد که به تازگی استحکام
بگرفت *

دیگر مقبرهٔ سلطان معز الدین سام را که دیوارِ غربی
و تخته‌های در کهنه و فرسوده شده بود هم نو کرده آمد، و بجای
چوبینه درها و طاقها و زینه‌ها از چوبِ صندل ساخته - منارهٔ
سلطان معز الدین سام را که از حادثهٔ برق افتاده بود بهتر از آنکه
بود از ارتفاعِ قدیمی بلندتر مرمت کرده شد *

دیگر حوضِ شمسِ که درآمدهای آب را مردمانِ بیدیان
از بالا بسته بودند و درآمدِ آب منقطع شده بود، آن متجاسرانِ
ناحفاظ را به تعزیرات زجر کردیم و درآمدهای آبِ بسته کشادیم *

دیگر حوضِ علائی که انپاشته و بی آب شده بود و خلقِ شهر درونِ حوضِ زراعت میکردند و چاهها کافتہ بودند، و آب از آن چاهها می فروختند - بعد قرنِ حُفرت کردیم تا غدیرِ عظیم از سال تا سالِ دیگر پر میشود *

همچنین مدرسهٔ سلطان شمس الدین ایلتمش را محلهای که انهدام پذیرفته بود، عمارت کرده درها از چوبِ صندل نهادیم، و ستونهای مقبره که افتاده بود، باز بهتر از آن که بود راست کردیم - صحنِ مقبره را وقتِ بنا گچ نکرده بودند آنرا گچ کرده شد، و در گنبد نردبان از سنگ تراشیده زیاده و در چهار برج پشتیبان ریخته برآورده شد *

مقبرهٔ سلطان معز الدین پسرِ سلطان شمس الدین که در ملکپور است چنان مندرس شده بود که گویا پیدا نبود، آنجا گنبد و چبوتره و محوطهٔ ریخته عمارتِ نو کرده شد *

مقبرهٔ سلطان رکن الدین پسرِ سلطان شمس الدین که در ملکپور است محوطهٔ مرتب کرده گنبدِ جدید برآورده و خانقاه عمارت کرده شد *

مقبره سلطان علاء الدین غریٰ مسجدی که درون مدرسه
است فرش تا نشیب مرتب کرده شد *

مقبره سلطان قطب الدین و فرزندان سلطان علاء الدین
خضرخان و شادی خان و فریدخان و سلطان شهاب الدین و سکندر خان
و محمد خان و عثمان و نبیرگان و فرزندان او را مقابر از سر نو
مرمت کرده شد *

درهای گنبد و جعفریهای مقبره شیخ الاسلام شیخ نظام
الحق والدین هم از صندل ساخته و قندیلهای زرین با زنجیرهای
زر در چهار زاویه کنج گنبد آویخته و جماعت خانه جدید
بنا کرده که آنچنان پیش ازین آنجا نبوده *

مقبره ملک تاج الملک کافوری که وزیر بزرگ سلطان
علاء الدین بود و عقل و کیاست وافر داشت و بسیار ملک او
گرفته بود که در آنجا پای اسپان پادشاهان ماضیه نرفته بود و خطبه
سلطان علاء الدین اظهار کرده بود - پنجاه و دو هزار سوار
داشت - مزار او بزمین برابر شده بود و مقبره پست گشته - از
سر مقبره مرمت کنانیده شد که دولخواه و حلالخوار بود *

در دار الامان که مضجع و مرقدِ مخدومانست درها از
چوبِ صندل و بر قبورِ آن خداوندگاران از پردهای درِ خانه
کعبه سائبان افراخته، مصالحِ این مرمت و عماراتِ این مقبره
و مدارس از اوقافِ قدیمِ ایشان مستقیم داشته شد - و در جایی
که پیش ازین وجهی معین نبود و برای صادر و وارد فرش
و روشنائی و اسباب که در خورِ آن مقام باشد دهها معین کرده
شد که محصول مدام آنجا خرج شد و همچنین، جهان پناه، که بنای
سلطانِ مغفورِ مرحوم محمد شاه است که خداوند، ولی نعمتِ
ما بود، و من مخصوص پرورده و برآورده اویم، معمور داشته
شد، و همچنین مجموعِ حصارها که بنا کرده سلاطینِ ماضیه در
مملکتِ دهلی است جمله را مرمت کرده شد *

دیگر در مدارس و مقابر و مزارهای سلاطینِ کامگار
و مشایخِ کبار برای صادر و وارد اسباب که در آن مقامهای
متبرکه درکار بود دهها و زمینها و اوقافِ قدیمِ ایشان مستمر
و جاری داشتیم، و زیادت آنکه در جایی که وجهی از اوقاف
و غیر آن معین نبود معین کردیم تا علی الدوام در آن محل خیر

قایم باشد و آئنده و رونده و اربابِ علوم و اصحابِ معارف
بیاسایند و ایشانرا و ما را به دعای خیر یاد کنند *

دیگر حق تعالی میسر گردانید که دار الشفا بنا کردیم تا از
خاص و عام هرکرا مرضی طاری میشود و برنجی مبتلا می گردد
آنجا بیاید - اطبا حاضر میباشند تا تشخیصِ مرض کنند و علاج
و پرهیز فرمایند، و دوی آن بدهند و وجه دوا و غذا از سهام
اوقافها بدهند - جمهورِ مریضان از هقیم و مسافر وضع و شریف
احرار و عبید آنجا می آیند، و معالجه ایشان میشود، بفضلِ حق
شفا مییابند *

دیگر از حضرت ذوالجلال و قادرِ پرکمال ابن بنده عاصی
توفیق یافت که اشخاصیکه در عهدِ خدایگانِ مغفورِ مرحوم محمد شاه
السلطان طابَ مَشوَاه که خداوندگار و مخدوم و مربی من بود،
به تقدیرِ الله تعالی کشته شده بودند، و کسانیکه اعضای ایشان از
چشم و بینی و دست و پا ناقص گشته، ورثه ایشانرا از قبل
بادشاهِ مغفور مرحوم استرضا نموده، و هر یکی را باموال راضی
گردانیده، خطوطِ خوشنودی موکد بشهودِ مستند در صندوق کرده
بدار الامان مقبره سلطان مغفور مرحوم نَوَرِ الله مَرَقَدَه جانبِ
سر داشته تا حق تعالی به کرمِ عیمِ خویش آن مخدوم و مربی

ما را غریقِ رحمت گرداناد، و ایشانرا از آن ولیِ نعمتِ ما از خزائنِ خویش خوش کناد *

دیگر از عطایای الهی آنست که دهها و زمینهای املاکِ قدیم بوجوه در عهدِ ماضیه سلب شده بود و در دیوان از تصرف و املاک بیرون رفته - گفتیم تا هرکه حجتِ ملک دارد در دیوانِ شرعی بیارد - بعد ثبوت دهی و زمینی که به تصرف درآورده و جز آن هرچه مملوکِ او باشد متصرف شود - بِحَمْدِ اللَّهِ وَ تَوْفِيقِهِ بدین فضیلت موفق شدیم و حقوق به مستحقین رسید *

دیگر بترغیبِ اهلِ ذمه بسوی دین هدیِ توفیق یافتیم و باعلام گفتیم هرکه از کفار کلمه توحید گوید و دینِ اسلام پذیرد، چنانکه در دینِ مصطفی صلی الله علیه و سلم آمده است جزیه ازو دور کنند¹ - حدیثِ آن بگوشِ عام رسید - فوج فوج

¹ در سیرتِ فیروز شاهی است: «هم از بواعثِ دیانت و احسان آن ست که بر اهل ذمه که بر ایشان وضعِ جزیه شده چنان ترغیب فرمود که در دینِ اسلام فوج فوج و قبیله قبیله درآمدند و کلمه طیبیه گفتند و در دائره اسلام دخیل گشتند، فرمان شد تا هرکه از هنود بیاید و اسلام آرد ازو مالِ جزیه که از راه شرع از ایشان مرفوع است هیچ کس از عمال طلب نکند (نسخه خطی نر جدو نامه سرکار، صفحه ۱۷۰) *

جماعه جماعه هنود آمدند و به شرفِ اسلام مشرف شدند،
و همچنین الی یومنا هذا از اطراف می آیند و ایمان می آرند
و جزیه ایشان دور می شود، و به انعامات و تشریفات مخصوص
میگردند، الحمد لله رب العلمین *

دیگر از مواهبِ الهی آن است که عرض و مالِ بندگانِ
خدای تعالی در عهدِ دولتِ ما در امن و امان محروس و مصون
می باشد و روا نمیداریم که قلیل و کثیر و فقیر و قطمیر از ملکِ
هیچ کسی کشیده شود و بسیار مردمِ مغوی سعایت نمودند که فلان
تاجر چندین لک و فلان عامل چندین لک دارد و ساعیان را
به تعزیرات و سیاست زبان کوتاه کردیم تا از شرّ این طائفه،
خلقِ این گشت، هر آینه بدین شفقت همگنان مخلص و دوستدارِ ما
شدند - * قطعه *

نامِ نیکو طلب که گنجِ سخا بهتر از گنجِ خواسته صد بار
یک ثنا به که چند خرمنِ گنج یک دعا به که مال صد خروار

دیگر بعنایتِ حق تواضعِ فقرا و مساکین و استمالتِ قلوبِ
ایشان در دلِ ما تمکن یافت تا هر جا فقری و گوشه نشینی یافتیم
برای ملاقاتِ او قدم زدیم و بدعا استمداد نمودیم تا فضیلتِ
نِعَمِ الْأَمِيرُ بِبَابِ الْفَقِيرِ اکتساب کرده شود *

دیگر هرکرا از اهل دولت عمرِ طبعی بکمال رسید و معمّر
گشت، بعد ترتیب وجه معاشِ او اجازت دادیم و نصیحت کردیم
تا باستعدادِ آخرت مشغول گردد و از منکراتِ شرع و دین که
در جوانی ارتکاب نموده باشد تائب گردد، و از دنیا اعراض کند
و بامورِ آخرت روی آورد، * رباعی *

چون پیر شدی کارِ جوان نتوان کرد
به پیریت کافری نهان نتوان کرد
در ظلمتِ شب هر آنچه کردی کردی
در روشنیِ روز همان نتوان کرد

دیگر بر قضیهٔ آن که، * قطعه *

طریق و رسمِ صاحبِ دولت آنست
که بنوازند مردانِ نکو را
دگر چون عمرِ آنکس منقضی شد
نکو دارند فرزندانِ او را

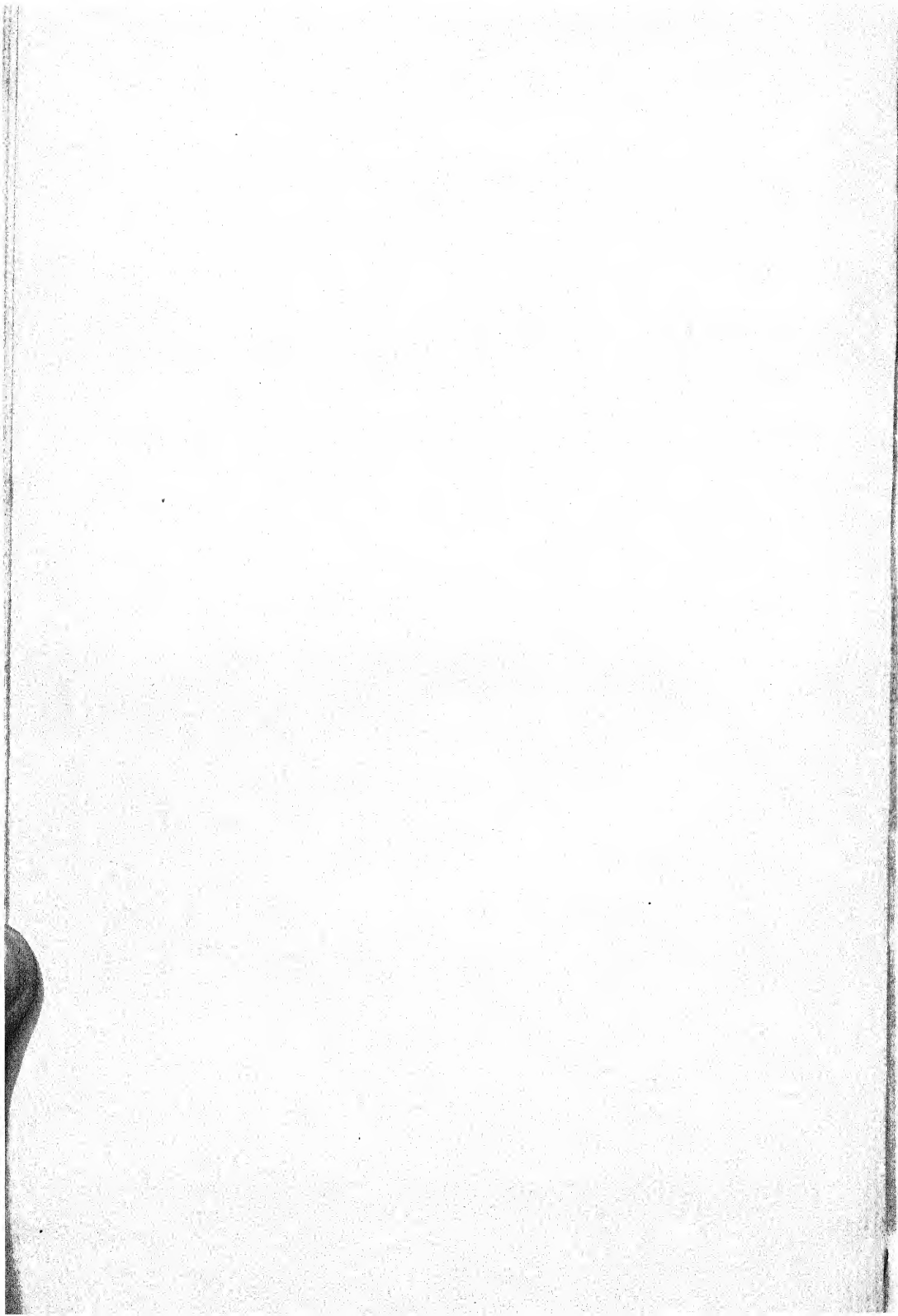
از اصحابِ شغل کسانی که مرتبه و جای داشتند چون به تقدیرِ
الله تعالی از دارِ غرورِ بصرای سرور بشدند، آن شغل و جاه به
فرزندانِ شان مقرر داشتیم بنوعی که از پدران در منزلت و نعمت
و شان باشند، در آن مرتبه نقصان راه نیابد،

✽ قطعه ✽

رسم و آئینِ بادشاهان است که خردمند را عزیز کنند
و ز پس عهدِ او وفاداری با خردمند زاده نیز کنند
دیگر بزرگترین و بهترین دولت که وَاهِبُ الْمُلْکِ جَلَّ جَلَّالَهُ
وَعَمَّ نَوَالُهُ این بنده را بخشیده آنست که باطاعت و اخلاص
و دولتخواهی و امتثالِ امرِ حضرتِ خلافتِ پناهی ابنِ عم
رسولِ الله صلی الله علیه و آله و سَلَّمَ که صَحَّتِ سلطنتِ بدان
نیابت است، و درست نباشد تا خود را بخادمیِ حضرتِ مشرف
نگرداند و اذن از آن درگاهِ مقدسه نیابد، توفیق داد تا اعتقاد برین
رسوخ یافت و از حضرتِ مقدسه دارالخلافه مناشیرِ باذنِ مطلق
و نیابتِ خلافتِ صادر شد و از حضرتِ اعلیٰ امیرِ المؤمنین
در منشورِ مبايعت به تشریفِ خطابِ «سید السلاطین» مشرف
گشت، و به تواتر تشریفات و نوازش به خلعتهای درگاهِ خلافت
از طیلسان و عِلَم و خاتم و سیف و فوطه بر جهانیان مفاخرت
و مباحات حاصل آمد ✽

این سریره آن بود که بذکرِ این مواهب کرده شد، از
هزار یکی و از بسیار اندکی شکرِ منعم بحقیقت گزارده شود

و دیگر آن کسانی که طالبِ خیر و سعادت باشند، این را که
بخوانند بدانند که این طریقِ مستحسن است و مروتِ مقتضی
نیست که باتّباعِ آن توفیق نیابد، ایشان به عملِ خودِ مثاب گردند
و ما بدلالِ خیرِ ماجور، اَلْدَّالُّ عَلَى الْخَيْرِ كَفَاعِلُهُ - تمام شد،
فتوحاتِ فیروز شاهی *



The Solar Eclipse in the Rgveda and the Date of Atri.

By P. C. SENGUPTA.

(Communicated by Prof. M. N. Saha, F.R.S.)

In the present paper we propose to find the time of the solar eclipse described in the *Rgveda*, the time which was undoubtedly that of the ṛṣi Atri, who was the author of the hymn V, 40, 5-9. The first attempt at finding the date of this event was made by Ludwig¹ in May, 1885, with the help of the Viennese astronomer Oppolzer. Ludwig imagined that there were references to four eclipses of the sun in the *Rgveda*, viz., V, 40, 5-9; V, 33, 4; X, 138, 3a and X, 138, 4. I have examined all these references and my view is that only the first reference describes a real eclipse of the sun; the other three relate to the summer solstice day and the appearance of clouds. Ludwig's paper was severely criticised by Whitney in 1885 under the caption 'On Professor Ludwig's views respecting total eclipses of the sun as noticed in the *Rgveda*', in the JAOS, xiii, pp. lxi-lxvi for October of the same year. Whitney ends his discussion with the following remarks:

'There are many other versions and statements and inferences in Prof. Ludwig's paper to which serious exception might be taken; but it was best to limit the discussion to the main point had in view, namely to show that no result possessing even presumptive and provisional value as bearing on ancient Hindu Chronology has been reached by his investigation.'

We shall show that Prof. Ludwig's interpretation of the *Rgveda* reference was not correct as this paper is developed.

Prof. C. R. Lanman in the year 1893, wrote a paper on '*Rgveda*, V, 40 and its Buddhist parallel' in the Festschrift Roth 187. Eclipse du soleil par *Svarbhānu* parallel *Samyukta Nikāya*, II, 1, 10 cited in Louis Renon's *Bibliographie Vedique*. We can only say that such similarity of statements as to solar eclipses in the two works cannot establish that the Atri tradition was contemporary with the *Samyukta Nikāya* event. To settle chronology by a reference to a solar eclipse is a very difficult matter. No easy going researches can be of any value.

Without making further attempt at tracing all the different attempts made before by other researchers, we proceed to

¹ Paper published in *Sitzungsberichte* of the Bohemian Academy of Sciences in 1885.

interpret the *Rgveda* reference V, 40, 5-9. The original Sanskrit *rcas* are:—

यत्त्वा सूर्यं स्वर्भानुस्तमसाविध्यदासुरः ।

अक्षेत्रविद्यथासुग्धो भुवनान्यदौघयुः ॥ ५ ॥

स्वर्भानोरघयदिन्द्रमायाऽअवोदिवो वर्तमानाऽअवाहन् ।

गूल्हं सूर्यं तमसापव्रतेन तुरीयेण ब्रह्मणाविन्ददत्रिः ॥ ६ ॥

मा मामिमं तव सन्तमचऽइरस्याद्गुग्धो भियसा निगारौत् ।

त्वं मित्रोऽअसि सत्यराधास्तौ मेहावतं वरुणश्च राजा ॥ ७ ॥

प्रावणो ब्रह्मायुयुजानः सपर्यन् कौरिणादेवान् नमसोपशिक्षन् ।

अत्रिः सूर्यस्य दिवि चक्षुराधात् स्वर्भानोरपमायाऽअधुक्षत् ॥ ८ ॥

यं वै सूर्यं स्वर्भानुस्तमसाविध्यदासुरः ।

अत्रयस्तमन्वविन्दन् न ह्यन्येऽअशक्नुवन् ॥ ९ ॥

Wilson's translation runs as follows:—

5. 'When, Surya, the son of Asura, Svarbhānu, overspread (rather "struck") thee with darkness, the worlds were beheld like one bewildered not knowing his place.'

The second line is perhaps more correctly translated as, 'the worlds shone lustreless like a confounded tactless person'.

6. 'When, Indra, thou wast dissipating those illusions of Svarbhānu which were spread below the sun, then Atri by his fourth sacred prayer (*turīyeṇa brahmanā*), discovered (rather "rescued") the sun concealed by the darkness impeding his functions'.

Whitney explains that '*Svarbhānu*' means simply 'skylight'. Whatever that may be, what interests us here is the phrase '*turīyeṇa brahmanā*', 'by the fourth sacred prayer' as translated by Wilson after Sāyana. Some say that this means a quadrant or the fourth part of a graduated circle which we cannot take to be correct. The use of the graduated circle or its fourth part in Vedic times was an impossibility. We could admit the validity of the interpretation if the event belonged to Brahmagupta's time (628 A.D.). Further it is a barren meaning which throws no light on any circumstance of the eclipse. As Wilson following Sāyana translates the phrase as 'by the fourth sacred prayer', we may take this to be the only correct interpretation. As the fourth prayer of the day most likely belonged to the fourth part of the day, we interpret that the eclipse in question was finished in the fourth part of the day.

Again the phrase '*turīyeṇa brahmanā*' may be interpreted in a different way. The word '*brahman*' itself may mean the summer solstice day. In the *Sāṅkhāyana Āraṇyaka* (Keith's

translation) the *mahāvratā* day is spoken of as 'This day is *brahman*' (I, 2) and in another place the same day is thus referred to—'*brahman* is this day' (I, 18). In the *Jaiminīya Brāhmaṇa* (II, 409-10) we have, 'मध्यतः संवत्सरस्य विषुवति महाव्रतम् उपयन्ति', which means that the *mahāvratā* ceremony used to be performed on the *viṣuvant* or the summer solstice day. We thus understand that '*turīyeṇa brahmaṇā*' means 'by the fourth part of the summer solstice day'. In other words, the eclipse in question was over in the fourth part of the summer solstice day itself. (Here '*turīyeṇa brahmaṇā*' = '*turīyeṇa kālena brahmadivasena*'.)

7. (Sūrya speaks); 'Let not the violater, (Atri), through hunger swallow with fearful (darkness) me, who am thine; thou art Mitra, whose wealth is truth; do thou and the royal Varuṇa both protect me'.¹

This verse seems to suggest that the eclipse in question although apprehended to be total was not so at the place of the observer.

8. 'Then the Brahman (Atri), applying the stones together propitiating the gods with praise, and adoring them with reverence, placed the eye of Sūrya (sun) in the sky; he dissipated the delusions of Svarbhānu.'

Here Atri is alleged to have found out the instant of the end of the eclipse by counting stones together—a practice that was continued even up to the time of Prthūdaka² (864 A.D.). Atri's placing the 'eye of Sūrya' in the sky shows that the end of the eclipse was visible.

9. 'The sun, whom the *Asura* Svarbhānu, had enveloped (rather "struck") with darkness, the sons of Atri subsequently recovered, no others were able (to effect his release³).'

As to the day of the year on which this eclipse took place the *Kauṣītaki Brāhmaṇa* (XXIV, 3, 4) throws a clearer light:—

स्वर्मातुर्ह्यसुरादिद्यं तमसाविध्यत्तस्यात्रयस्तमोपजिघांसन्त एतं स्तप्त-
दशस्तोमं व्यहं पुरस्ताद्विषुवतउपायंस्तस्य पुरस्तात्तमोपजिघ्रस्तत् पुरस्ता-

¹ This is Wilson's translation (*vide* R̥gveda Translation by H. H. Wilson, Vol. 3, p. 219 of the Poona Edition). MM. Vidhuśekhara Śāstri is of opinion that the word 'Atri' should be deleted and that in place of 'fearful (darkness)' we should have simply 'fear'.

² Cf. Prthūdaka's Commentary on the *Khaṇḍakhādya* of Brahmagupta, edited by P. C. Sengupta, Calcutta University Press, page 16
अथ देशं परिज्ञातुमिच्छति किं रेखा पूर्वणापरेण वा । तदाभौष्टदेष्टे स्फुटब्रह्मगणितेन
गणयित्वा देशान्तरकर्षणा विना ततो निर्मञ्चाक्षरगुटिका चारोथ निरूपयेत् ।
i.e. Prthūdaka recommends that time for the beginning of the eclipse, should be found by counting beads.

³ MM. Vidhuśekhara Śāstri would like to put the phrase 'to do it' in place of 'to effect his release' in the above translation by Wilson. Cf. Keith's translation on the next page.

दसौददेतमेव त्वहमुपरिष्ठाद्विषुवत उपायंस्तस्य परस्तात् तमोपजघ्नस्तद्य
एवं विद्वांस एतं सप्तदशस्तोमं त्वहमुभयतो विषुवन्तमुपायन्त्युभाभ्यामेव
ते लोकाभ्यां यजमानाः पाप्मानमपन्नते तान्वै खरसामान इत्याचक्षते
एतैर्हवा अत्रयः आदित्यं तमसोपस्पृश्वत तद्यदपस्पृश्वत तस्मात् खर-
सामानस्तदेतदृचाऽभ्युदितम् ।

यं वै सूर्यं खर्भानुस्तमसाविध्यदासुरः ।

अत्रयस्तमन्वविन्दमृच्छान्येऽग्रशक्नुवन् ॥ इति ॥

Keith translates the passage as follows:—

‘Svarbhānu, an Asura, pierced with darkness the sun; the Atris were fain to smite away its darkness; they performed before the *viṣuvant*, this set of three days, with *saptadaśa* (= seventeen) *stomas*. They smote away the darkness in front of it, that settled behind; they performed the same three-day rite after the *viṣuvant*; they smote away the darkness behind it. Those who perform knowing thus, the three-day (rite) with *saptadaśa stoma* on both sides of the *viṣuvant*, verily those sacrificers smite away evil from both worlds. They call them the *svarasāmans*, by them the Atris rescued (*apasprvata*) the sun from the darkness; in that they rescued, therefore they are the *svarasāmans*. This is declared in a *rc*,

‘The Sun which Svarbhānu
The Asura pierced with darkness,
The Atris found it,
None other could do so.’

We gather from this passage that the day on which the eclipse happened was a *viṣuvant* day. Now the word ‘*viṣuvant*’ according to the *Aitareya* and the *Kauṣītaki Brāhmaṇas*, meant the summer solstice day, as I have set forth elsewhere.¹ The arguments in favour of this meaning may be summarized thus:—

According to the *Aitareya Brāhmaṇa*, the *viṣuvant* and *Ekaviṃśa* day was the same day.² It was the day on which the gods raised up the sun to the highest point in the heavens, and that on this day the sun being held on either side by a period of *Virāj* (10 days), did not waver though he went over these worlds or the *viṣuvant* was the true summer solstice day.³ The *Kauṣītaki Brāhmaṇa* also says that the sun starting northward from the winter solstice on the new moon of Māgha, reached the *viṣuvant* after six months. Thus according to these two *Rgveda Brāhmaṇas*, the *viṣuvant* day meant the summer solstice day only.

¹ JRASBL, Vol. iv, 1938, pp. 415–18, and pp. 421–22.

² *Aitareya Brāhmaṇa*, 18, 18.

³ *Kauṣītaki Brāhmaṇa*, xix, 3.

In the days of the *Taittirīya Saṃhitā* and the *Tāṇḍya*¹ *Brāhmaṇa* (2449 B.C.), the word 'viṣuvant' came to mean the middle day of the sacrificial year begun from spring, i.e. it became the day on which the sun's longitude became 150°, or the day of the beginning of Indian autumn.

Finally, the same word 'viṣuvant' came to mean about the time (1400 B.C.) of the *Vedaṅgas*,² the vernal or the autumnal equinox day.

Hence in interpreting a *R̥gveda* reference we should take the word 'viṣuvant' as the summer solstice day only, as this is the meaning of it given by the *R̥gveda Brāhmaṇas*.

Another point that needs be clarified in this connection is to try to get at the rough time of Atri and the place of his observation of this eclipse. We shall use the *R̥gveda* references relating to Atri. Some of these are cited below to show where and when Atri lived.

- (a) I, 51, 3,³ addressed to Indra—'Thou hast shown the way to Atri, who vexes his adversaries by a hundred doors'.
- (b) I, 112, 7,⁴ addressed to the Aśvins—'You rendered the scorching heat pleasurable to Atri'.
- (c) I, 119, 6,⁵ addressed to the Aśvins—'You quenched with snow (*himena*) for Atri, the scorching heat'.
- (d) I, 116, 8,⁶ addressed to the Aśvins—'You quenched with cold (*himena*), the blazing flames (that encompassed Atri), and supplied him with food supported strength; you extricated him, Aśvins from the dark cavern into which he had been thrown headlong, and restored him to every kind of welfare'.
- (e) I, 139, 9,⁷ addressed by Paruccheṣa to Agni, showing the high antiquity in which Atri lived—'The ancient Dadhyañc, Aṅgiras, Priyamedha, Kanva, Atri, Manu have known my birth'.

¹ *Taittirīya Saṃhitā*, VII, 4, 8, also *Tāṇḍya Brāhmaṇa*, V, 9; for exposition see JRASBL, Vol. iv, 1938, pp. 425-36.

² Yājuṣa Jyautiṣam, 23.

³ अपोतात्रये शतदुरेषु गातुवित् ।

⁴ तप्तं घर्मसोम्यामवन्तमचये ।

⁵ हिमेन घर्मं परिहृप्तमचये ।

⁶ हिमेनाग्निं घ्नं समवारयेथां पितुमतीमूर्जसस्त्राऽश्नन्तं ।

ऋषीये अत्रिमश्विनावनौतमन्निन्ययुः सर्वगणं खसि ॥

⁷ दध्यङ् हिमे अनुषं पूर्वोऽश्चङ्गिराः प्रियमेधः कण्ठोऽश्चर्मनुर्विदुस्ते पूर्वमनुर्विदुः ।

- (f) I, 181, 4,¹ addressed to the Ásvins—‘You rendered the heat as soothing as sweet butter to Atri’.
- (g) V, 73, 6-7,² addressed to the Ásvins—‘Leaders (of rites) Atri recognized (your benevolence) with a grateful mind on account of the relief you afforded him, when, Nāsatyas through his praise of you, he found the fiery heat innocuous’. ‘Atri was rescued by your acts.’

From these quotations it would appear that Atri took shelter in a cave with a hundred doors or openings. There he felt scorching heat which was allayed by a thaw of ice from the snow-capped top of the mountain peak, at the bottom of which this cave was situated. From quotation (e), we gather that Atri was a contemporary of Dadhyañc, Angiras, Priyamedha, Kanva and Manu and was probably one of the first batch of the Aryans to pour into the Punjab.

The favour of the Ásvins which Atri is alleged to have received was in the form of a thaw of ice, which happened at the time perhaps of the rising of α *Arietis* in the east at the end of the evening twilight. For this astronomical event at about 4000 B.C., at the latitude of Kuruksetra, the sun's longitude comes out to have been $97^{\circ} 54'$, which was correct about 8 days after the summer solstice. This time or the part of the year was quite favourable for the thaw of the Himalayan ice.

We may thus conclude that Atri lived about 4000 B.C., in a cave of a hundred openings at the bottom of a snow-capped peak either of the Himalayas or of the Karakoram range and the eclipse of the sun spoken of in the hymn attributed to Atri, happened on the *viṣuvant* day, i.e. on the summer solstice day either correctly ascertained or estimated, and in the fourth part of the day of the meridian of Kuruksetra. Now the *viṣuvant* or the summer solstice day, if estimated, might mean actually the day following it. For example, if the sun was determined to have reached the winter solstice on the 13th day, say of lunar Māgha then according to the vedic lunisolar calculations, in $1\frac{1}{2}$ years there would be 18 lunations and 17 days.³ This period

¹ युवं ह वर्मं मधुमन्तमत्रये पीनक्षोदो वृणीत मेवे ।

² युवोरचिच्छिकेतति नरासुम्नेन चेतसा ।

वर्मं यद्वासरेपसं नासत्यास्त्राभुरण्णति ॥

* * * * *

यद्वां दंशोभिरश्चिनाचिर्नराववर्त्तति ॥

³ Cf. ‘Seventeen stomas’ in the *Kauṣītaki Brāhmaṇa*, xxiv, 3, 4, loc. cit.; compare also the *Āitareya Brāhmaṇa*, xviii, 18, where the three stomas before the *viṣuvant* are said to become seventeen stomas in connection with the *Svarasāman* days.

would comprise 548·6 days while $1\frac{1}{2}$ tropical years = 548 days, the estimated summer solstice day according to the Vedic rule would come about 0·6 day after the true summer solstice. In practice the estimated summer solstice day would generally fall one day after the true solstice day in $1\frac{1}{2}$ years.

The solar eclipse of which we want to find the date, from the above considerations must have satisfied the following conditions:—

- (i) It must have happened on the true summer solstice day or on the day following, and no other date is acceptable.
- (ii) It must have happened or rather ended in the fourth part of the day for the meridian of Kurukṣetra.
- (iii) It must have been a central solar eclipse.
- (iv) It must have been observed from a cave at the foot of a snow capped peak either of the Himalayas or of the Karakoram range.
- (v) That at the place of Atri, the eclipse did not reach the totality.
- (vi) It must have happened between 4000 B.C. to 2400 B.C. neither earlier nor later, when the word *viṣuvant* had its oldest meaning, viz., the summer solstice day.

We now proceed to determine the central solar eclipse which must satisfy all the conditions enumerated above. For starting our calculations we get at a central solar eclipse happening on the 21st July, 3146 B.C. The suggestion for it came from the *Kauṣītaki Brāhmaṇa*, which says that the sun turned north on the new moon of Māgha. This Māgha was not an ordinary month of Māgha as it comes every year, but it was the Vedic standard month of Māgha which came in our time in the years 1924, 1927, 1932 and 1935, as has been shown in another place.¹ I tried the months of lunar Māgha of the years 1924, 1932 and 1935, but these did not lead to a central solar eclipse on the summer solstice day or on the day following it. The Vedic month of Māgha as it came in 1927 A.D., however, did yield the central solar eclipse on the 21st July, 3146 B.C. in the following way:—

In the year 1927 A.D., the Vedic standard month of Māgha lasted from Feb. 2 to March 3. Full 31 lunations after this last date (i.e. March 3, 1927) came the 3rd of September, 1929, on which day the new moon happened at about Greenwich Mean Noon. Now on the 3rd September, 1929, the Sun's mean longitude from Newcomb's equation comes out to have been $162^{\circ} 8' 33''$. Ignoring the sun's equation, I assumed as a first step that this longitude was 90° in the year we want to determine. This shows a total shifting of the solstices by $72^{\circ} 8' 33''$, representing

¹ JRASBL, Vol. iv, 1938, p. 421.

a lapse of 5227 years till 1929. From which we get that the longitude of the sun's apogee was $= 12^{\circ} 36' 48''$ at 51.98 centuries before 1900 A.D. The eccentricity of the sun's orbit was $= .01858$ nearly. Hence the sun's equation for the mean longitude of 90° was $= -2^{\circ} 5' 9''$ nearly. This equation is applied to the mean longitude of the sun at G.M.N. on the 3rd September, 1929, viz., $162^{\circ} 8' 33''$. The result $160^{\circ} 3'$ for 1929 A.D. was $= 90^{\circ}$ in the year we want to determine. This gives a total shifting of the solstices up to 1929 A.D. to be $= 70^{\circ} 3'$ indicating a lapse of 5074 years. Now since—

$5074 = 1939 \times 2 + 160 \times 7 + 19 \times 4$, and as 1939, 160 and 19 years represent lunisolar cycles in sidereal years, it may be inferred that the number of elapsed years till 1929 A.D. does not require any change to make the year arrived at similar to 1929 A.D.

$$\begin{aligned}\text{Now } 5074 \text{ sidereal years} &= 1853311 \text{ days} \\ &= 5074 \text{ Julian years} + 32.5 \text{ days.}\end{aligned}$$

Hence the Julian date arrived at is, -3145 A.D., July 20, or 3146 B.C., July 20.

Now the lunisolar mean places on:—

1	2
July 20, 3146 B.C., G.M.N.	July 21, 3146 B.C., G.M.N.
Mean Sun $= 91^{\circ} 51' 48''.42$,	Mean Sun $= 92^{\circ} 50' 56''.75$,
„ Moon $= 80^{\circ} 1' 41''.45$,	„ Moon $= 93^{\circ} 12' 16''.45$,
A. Node $= 270^{\circ} 21' 25''.00$,	D. Node $= 90^{\circ} 18' 14''.37$,
L. Perigee $= 250^{\circ} 39' 1''.02$.	L. Perigee $= 250^{\circ} 45' 42''.07$.

(The lunisolar mean places have been calculated back from the equations given by Newcomb and Brown, which have been taken as correct in the present paper, from 4500 B.C. up to the modern times.)

The figures in column (2) show that on the 21st July, 3146 B.C., there was an annular eclipse of the sun, but this was not visible from the Northern Punjab, and could not be accepted as giving us Atri's time. This eclipse, however, took place (1) on the day following the summer solstice and (2) in the fourth part of the day on the meridian of Kuruksetra. We take this eclipse as the starting point for further calculations.¹ We find that:—

$$\begin{aligned}\text{The mean tropical year} & \\ \text{at } 3146 \text{ B.C.} &= 365.2425085 \text{ da.} \\ \text{The mean synodic month} & \\ \text{at this epoch} &= 29.5305988 \text{ da.}\end{aligned}$$

¹ There is another possible method for getting at a central solar eclipse (within the range 4000 B.C. to 2400 B.C.) on the S.S. day which is detailed in the note added to this paper as Appendix III.

The mean motion of the moon's node at this epoch	= 69636".6596 per tropical year.
Tropical revolution of the node at this epoch	= 18.61127 tropical yrs.
Tropical revolution of the Perigee at this epoch	= 8.84527 tropical yrs.

In our calculation both backward or forward from this epoch, we cannot use the Chaldean *Saros*, as it does not contain an exact number of tropical years. We want to find only those central eclipses of the sun which happened on the same day of the tropical year, and proceed to find the cycles suitable to our problem.

Now,

$$(a) \frac{\text{Tropical year}}{\text{Synodic month}} = 12 + \frac{1}{2} + \frac{1}{1} + \frac{1}{2} + \frac{1}{1} + \frac{1}{1} + \frac{1}{18} \dots$$

$$\text{The convergents are: } \frac{12}{1}, \frac{25}{2}, \frac{37}{3}, \frac{99}{8}, \frac{136}{11}, \frac{235}{19}, \frac{4366}{353} \dots$$

Here the most important lunisolar cycles are, in tropical years, 8, 11, 19 and 353 containing lunations of 99, 136, 235 and 4366 respectively.

(b) Similarly the convergents to the tropical half-revolutions of the node in tropical years are given by,

$$9.305635 = 9 + \frac{1}{3} + \frac{1}{3} + \frac{1}{1} + \frac{1}{2} + \frac{1}{9} \dots$$

$$\text{The convergents are: } \frac{9}{1}, \frac{28}{3}, \frac{93}{10}, \frac{121}{13}, \frac{335}{36} \dots$$

We now readily get the following eclipse cycles:

- (1) 456 years = (335+121) yrs. = $24\frac{1}{2}$ revols. of Node,
 = (353+19×5+8) yrs. = 5640 lunations nearly.

Here 456 years = 166551 days and

5640 lunations = 166552.6 days = $24\frac{1}{2}$ revols. + 28' motion of Node,

= 51 revols. + 199° motion of Perigee.

- (2) 391 years = (335+2×28) yrs. = 21 revols. of Node nearly.

= (353+19×2) yrs. = 4836 lunations very nearly.

Here 391 years = 142810 days = 4836 lunations.

= 21 revols. + 3° 10' motion of Node = 44 revols. + 73° 33' motion of Perigee.

$$\begin{aligned}
 (3) \text{ 763 years} &= (335 \times 2 + 93) \text{ yrs.} = 41 \text{ revols. of the Node} \\
 &\text{ nearly.} \\
 &= (353 \times 2 + 19 \times 3) \text{ yrs.} = 9437 \text{ lunations} \\
 &\text{ very nearly.}
 \end{aligned}$$

$$\begin{aligned}
 \text{Here 763 years} &= 278680 \text{ days} = 9437 \text{ lunations very nearly,} \\
 &= 41 \text{ revols.} - 1^\circ 11' \text{ motion of Node} = 86 \\
 &\text{ revols.} + 93^\circ 32' \text{ motion of Perigee.}
 \end{aligned}$$

From these three fundamental cycles we get some other auxiliary cycles as detailed below:—

$$\begin{aligned}
 (4) \text{ 372 tropical years} &= \left\{ \begin{array}{l} 4601 \text{ lunations,} \\ 20 \text{ revols.} - 4^\circ 21' \text{ of motion of Node,} \\ 42 \text{ revols.} + 20^\circ \text{ of motion of Lunar} \\ \text{Perigee,} \\ 135870 \text{ days.} \end{array} \right. \\
 (5) \text{ 19 tropical years} &= \left\{ \begin{array}{l} 235 \text{ lunations,} \\ 1 \text{ revol.} + 7^\circ 31' \text{ motion of Node,} \\ 2 \text{ revols.} + 53^\circ 22' \text{ motion of Lunar} \\ \text{Perigee,} \\ 6940 \text{ days nearly.} \end{array} \right. \\
 (6) \text{ 65 tropical years} &= \left\{ \begin{array}{l} 804 \text{ lunations} - 1.6 \text{ days,} \\ 3\frac{1}{2} \text{ revols.} - 2^\circ 39' \text{ motion of Node,} \\ 7 \text{ revols.} + 125^\circ 30' \text{ motion of Lunar} \\ \text{Perigee,} \\ 23741 \text{ days.} \end{array} \right.
 \end{aligned}$$

With the help of these cycles as a first step, I could find 19 central eclipses of the sun near the summer solstice day extending from 4319 B.C. to 2234 B.C. I could then collect from them 10 central eclipses of the sun happening either on the summer solstice day or on the day following as exhibited in Table I, Appendix I, all of which happened near the descending node. I then worked out 12 central solar eclipses near the ascending node which also happened near the summer solstice day as exhibited in Table II, Appendix I. Of all these 22 central solar eclipses near the summer solstice day, the one that happened on the 26th of July, 3928 B.C. alone meets all the conditions set forth before.

In connection with examination of the Tables I and II and other possible central solar eclipses that may be found in the period from 4319 B.C., it is worthy of note that one of the essential conditions for a central solar eclipse on the summer solstice day to be visible in the Northern Punjab, is that the ascending node should have a longitude of about 85° and the descending node of about 95° .

I myself and my assistant Mr. Nirmal Chandra Lahiri, M.A., are satisfied that no other central solar eclipse than that which happened on the 26th July, 3928 B.C. meets all the necessary conditions under which the solar eclipse described in the *Rgveda*

happened, the range under purview being from 4319 to 2234 B.C. According to our finding therefore, *the solar eclipse of the 26th July, 3928 B.C., represents a unique solution of the Rġvedu reference.*

The circumstances of the eclipse for the meridian of Kurukṣetra and for the latitudes of $33\frac{1}{2}^{\circ}$ and $35\frac{1}{2}^{\circ}$ north respectively have been calculated by my collaborator Mr. Lahiri under my supervision. He has, I trust, done this part of the work correctly on methods which had my approval. The chief features are summarized below while the entire work is exhibited in Appendix II.

Solar Eclipse, July 26th, 3928 B.C.

A.

Meridian of Kurukṣetra and north latitude $33\frac{1}{2}^{\circ}$.

(I) Beginning of the eclipse	..	3-17 P.M.	Kurukṣetra M.T.
(II) Time of nearest approach of the centres	..	4-19 P.M.	" "
(III) End of eclipse	..	5-19 P.M.	" "
(IV) Magnitude of the eclipse	..	0-735	
(V) Instant of New Moon	..	2-58 P.M.	" "
(VI) Sun's longitude at New Moon		90° 16' nearly.	

B.

Meridian of Kurukṣetra and north latitude $35\frac{1}{2}^{\circ}$.

(I) Beginning of the eclipse	..	3-13 P.M.	Kurukṣetra M.T.
(II) Nearest approach of centres		4-18 P.M.	" "
(III) End of the eclipse	..	5-17 P.M.	" "
(IV) Magnitude of the eclipse	..	0-792	

This eclipse thus takes place on the summer solstice day after 3 P.M. and lasts for about 2 hrs., and finishes in the last quarter of the day. Although it was a total eclipse of the sun, at the place of the observer the totality apprehended was not reached by it. From this 'disaster' the sun was 'saved' by Atri as the *Rġveda* text says.

As to Prof. Ludwig's paper, I have not had access to it yet, but from what I could gather of it from Whitney's criticism in JAOS for 1855, he interpreted the word *viṣuvant* as an equinoctial day which is here unjustifiable. The *Kauṣṭiki* and the *Aitareya Brāhmaṇas* do not take it in that sense, as has been pointed out before. These *Brāhmaṇas* interpret the word as 'the summer solstice day' and nothing else. Hence as Ludwig was wrong in his interpretation, Oppolzer, who began his calculation of eclipses from 1200 B.C. downward thought that either of the dates

1001 B.C. and 1029 B.C. would meet the *R̥gvedic* conditions. Oppolzer's findings may be summarized as:—

- (a) October 2, 1001 B.C. The solar eclipse was annular. Time of N.M. of the eclipse was 4 hrs. 44·8 min. and the longitude of the sun was 179°·592. Hence according to Oppolzer's calculation the day was of autumnal equinox.
- (b) October 11, 1029 B.C. Time of N.M. of the eclipse was 23 hrs. 44·9 min. and the longitude of the sun was 189°·28. This eclipse was not completely visible in India and did not happen even on the autumnal equinox day.

Oppolzer based his finding on a wrong interpretation of the word *visuvant* as given by Ludwig and it is thus quite untenable.

Oppolzer again for his calculations had to depend on Leverrier's equations for the sun's elements and Hansen's equations for those of the moon. On October 12, 1001 B.C. at G.M.N. the mean lunisolar elements were:—

Mean Sun	= 181° 31' 6"·65,
Mean Moon	= 177° 37' 41"·19,
A. Node	= 175° 44' 34"·30,
Lunar Perigee	= 76° 13' 35"·68,

as deduced from the latest equations. The new moon happened about 5 hours before, i.e. at 7 hrs. G.M.T. or 12-8 noon of Kurukṣetra mean time. It seems that the beginning, middle and the end of the eclipse cannot be correctly obtained from Hansen's equations. In the present case our finding of the N.M. and that of Oppolzer are different.

As has been said before, Lanman has pointed out a parallelism of the description of the solar eclipse in the *R̥gveda* and that in the *Saṃyukta Nikāya*. But we are unable to attach any importance to any suggestion therefrom of any synchronism of the two events. It can have no chronological value. What is found in the *Saṃyukta Nikāya* may be a mere imitation of what is contained in the *Brāhmaṇas*.

The time of the solar eclipse spoken of in the *R̥gveda* is thus obtained as July 26 of 3928 B.C. This date at once settles the time of Atri, the observer of this eclipse. In our finding this Atri was one of the first batch of the Aryans who tried and succeeded in settling in the Northern Punjab. As shown before he took shelter in a cave at the foot of a snow-capped peak either of the Himalayas or of the Karakoram range. In my papers¹ on '*Madhu-Vidyā*' and 'When Indra became Maghavan' the dates arrived at were 3995 B.C. and 4170 B.C. and are liable to being lowered to about 3900 B.C. as these dates depended on a change

¹ JRASBL, Vol. iv, 1938, No. 3.

in the celestial longitudes of stars due to the precession of equinoxes. The date herein arrived at by a unique determination of a central solar eclipse is not liable to any such change, if as in the present case, the most up to date equations for the elements of the sun and the moon given by Newcomb and Brown be assumed as correct for all times past, present or future. We thus arrive at this definite conclusion that the Aryan colonization of India began about 3900 B.C. If this last finding be called into question the name of Atri should be traceable in the past traditions of the Parsis and the ancient Greeks and also of the 'Elder race' of Aratos and Eudoxus.

Finally, I hope that attention of the astronomers, chronologists and orientalist all the world over, will be drawn to this finding of the date of the solar eclipse as described in the *Rġveda*.

APPENDIX I—TABLE I.

Interval.	Julian date.	Mean elements at G.M. Noon.	REMARKS.
19 yrs.	4319 B.C. July 29	Mean Sun = $92^{\circ} 21' 38''.88$ „ Moon = $91^{\circ} 57' 42''.79$ D. Node = $99^{\circ} 50' 55''.98$ Perigee = $29^{\circ} 40' 21''.44$	N.M. 13 hrs. before G.M.N. Node unfavourable.
372 yrs.	4300 B.C. July 29	Mean Sun = $92^{\circ} 44' 46''.51$ „ Moon = $96^{\circ} 6' 45''.19$ D. Node = $92^{\circ} 18' 16''.33$ Perigee = $83^{\circ} 3' 38''.47$	N.M. 14 hrs. before G.M.N.
19 yrs.	3928 B.C. July 26	Mean Sun = $92^{\circ} 30' 50''.92$ „ Moon = $92^{\circ} 19' 31''.20$ D. Node = $96^{\circ} 36' 55''.35$ Perigee = $103^{\circ} 37' 10''.50$	
372 yrs.	3909 B.C. July 26	Mean Sun = $92^{\circ} 53' 59''.86$ „ Moon = $96^{\circ} 28' 42''.40$ D. Node = $89^{\circ} 4' 24''.65$ Perigee = $155^{\circ} 18' 4''.87$	Not visible in upper India.
372 yrs.	3537 B.C. July 23	Mean Sun = $92^{\circ} 40' 37''.37$ „ Moon = $92^{\circ} 44' 21''.45$ D. Node = $93^{\circ} 26' 0''.00$ Perigee = $175^{\circ} 30' 44''.28$	New Moon 8 hrs. after G.M.N.
19 yrs.	3165 B.C. July 20	Mean Sun = $92^{\circ} 27' 44''.65$ „ Moon = $89^{\circ} 2' 47''.65$ D. Node = $97^{\circ} 50' 27''.48$ Perigee = $198^{\circ} 26' 16''.72$	New Moon about 12 hrs. after G.M.N.
372 yrs.	3146 B.C. July 21	Mean Sun = $92^{\circ} 50' 56''.75$ „ Moon = $93^{\circ} 12' 16''.46$ D. Node = $90^{\circ} 18' 14''.87$ Perigee = $250^{\circ} 45' 42''.07$	Not visible in Northern India.
372 yrs.	2774 B.C. July 18	Mean Sun = $92^{\circ} 38' 35''.56$ „ Moon = $89^{\circ} 33' 40''.15$ D. Node = $94^{\circ} 45' 43''.88$ Perigee = $269^{\circ} 31' 23''.82$	New Moon two hours after G.M.N.
19 yrs.	2402 B.C. July 15	Mean Sun = $92^{\circ} 26' 44''.54$ „ Moon = $85^{\circ} 57' 55''.39$ D. Node = $99^{\circ} 16' 9''.33$ Perigee = $290^{\circ} 16' 30''.04$	New Moon 9 hrs. later.
	2383 B.C. July 15	Mean Sun = $92^{\circ} 49' 59''.88$ „ Moon = $90^{\circ} 7' 41''.78$ D. Node = $91^{\circ} 44' 15''.03$ Perigee = $343^{\circ} 24' 29''.58$	N.M. 8 hrs. before G.M.N. and not in the proper part of the day.

APPENDIX I—TABLE II.

Interval.	Julian date.	Mean elements at G.M. Noon.	REMARKS.
372 yrs.	4607 B.C. Aug. 2	Mean Sun = $94^{\circ} 11' 58''.93$ " Moon = $93^{\circ} 48' 11''.41$ A. Node = $90^{\circ} 38' 58''.36$ Perigee = $187^{\circ} 57' 15''.92$	2 days after S.S.
372 yrs.	4235 B.C. July 30	Mean Sun = $93^{\circ} 57' 38''.79$ " Moon = $89^{\circ} 58' 43''.54$ A. Node = $94^{\circ} 55' 21''.50$ Perigee = $209^{\circ} 27' 48''.49$	N.M. 12 hrs. later. Not visible in N. India.
19 yrs.	3863 B.C. July 27	Mean Sun = $93^{\circ} 43' 49''.19$ " Moon = $86^{\circ} 11' 58''.11$ A. Node = $99^{\circ} 14' 29''.00$ Perigee = $229^{\circ} 11' 14''.02$	Not visible in N. India. N.M. 17 hrs. later. 2 days after S.S.
19 yrs.	3844 B.C. July 27	Mean Sun = $94^{\circ} 6' 59''.19$ " Moon = $90^{\circ} 21' 10''.78$ A. Node = $91^{\circ} 41' 59''.82$ Perigee = $282^{\circ} 37' 3''.92$	2 days after S.S.
353 yrs.	3825 B.C. July 26	Mean Sun = $93^{\circ} 31' 0''.23$ " Moon = $81^{\circ} 19' 48''.77$ A. Node = $84^{\circ} 12' 41''.63$ Perigee = $336^{\circ} 2' 7''.09$	N.M. about $2\frac{1}{2}$ hrs. later. Eclipse not finished before sunset.
19 yrs.	3472 B.C. July 24	Mean Sun = $93^{\circ} 53' 41''.69$ " Moon = $86^{\circ} 37' 18''.98$ A. Node = $96^{\circ} 4' 4''.48$ Perigee = $302^{\circ} 53' 36''.26$	N.M. about $4\frac{1}{2}$ hrs. later.
353 yrs.	3453 B.C. July 24	Mean Sun = $94^{\circ} 16' 52''.37$ " Moon = $90^{\circ} 46' 38''.11$ A. Node = $88^{\circ} 31' 44''.40$ Perigee = $356^{\circ} 15' 57''.77$	2 days after S.S.
19 yrs.	3100 B.C. July 21	Mean Sun = $93^{\circ} 40' 53''.98$ " Moon = $82^{\circ} 56' 13''.45$ A. Node = $100^{\circ} 29' 2''.49$ Perigee = $323^{\circ} 2' 6''.52$	N.M. 9 hrs. later.
372 yrs.	3081 B.C. July 21	Mean Sun = $94^{\circ} 4' 6''.32$ " Moon = $87^{\circ} 5' 44''.65$ A. Node = $92^{\circ} 56' 51''.25$ Perigee = $16^{\circ} 19' 46''.72$	2 days after S.S.
19 yrs.	2709 B.C. July 18	Mean Sun = $93^{\circ} 51' 50''.72$ " Moon = $83^{\circ} 28' 37''.25$ A. Node = $97^{\circ} 24' 50''.57$ Perigee = $36^{\circ} 11' 31''.18$	N.M. about 9 hrs. later.
372 yrs.	2690 B.C. July 19	Mean Sun = $94^{\circ} 15' 34''.50$ " Moon = $87^{\circ} 38' 17''.37$ A. Node = $89^{\circ} 52' 49''.10$ Perigee = $88^{\circ} 28' 23''.32$	2 days after S.S.
	2318 B.C. July 16	Mean Sun = $94^{\circ} 3' 50''.17$ " Moon = $84^{\circ} 2' 11''.59$ A. Node = $94^{\circ} 23' 54''.42$ Perigee = $108^{\circ} 3' 24''.72$	2 days after S.S.

APPENDIX II.

Calculation of the Solar Eclipse on July 26, 3928 B.C.

Julian days = 286928

Julian days on 1st Jan., 1900 = 2415021

Hence the epoch is 2,128,093 days before 1st Jan., 1900, of 12 hr. Greenwich mean midday, i.e. 58.26 Julian centuries + 146.5 days earlier.

Lunisolar elements at G.M. Noon on July 26, 3928 B.C.

Let A represent the epoch 8 A.M. (G.M.T.) i.e. 1.8 P.M. Kurukṣetra time.
 " B " " " 10 A.M. " " 3.8 P.M. " "
 " C " " " 12 Noon " " 5.8 P.M. " "

Mean Sun.

A = 92° 20' 59".54
 B = 92° 25' 55".23
 C = 92° 30' 50".92

Mean Moon.

A = 90° 7' 45".36
 B = 91° 13' 38".28
 C = 92° 19' 31".20

D. Node.

A = 96° 37' 27".11
 B = 96° 37' 11".23
 C = 96° 36' 55".35

Moon's Perigee.

A = 103° 36' 3".66
 B = 103° 36' 37".08
 C = 103° 37' 10".50

Sun's apogee = 1° 55' 57".37
 " eccentricity (e) = 0.018759
 " (2e) in radians = 128'.977 [2.1105136]
 " ($\frac{2}{3}e^2$) " = 1'.512 [0.1796033]

LONGITUDE OF SUN.

	A	B	C
Mean Sun	= 92° 21' 0"	92° 25' 55"	92° 30' 51"
Sun's apogee	= 1° 55' 57"	1° 55' 57"	1° 55' 57"
<hr/>			
g = Sun's anomaly (Indian)	= 90° 25' 3"	90° 29' 58"	90° 34' 54"
$-128'.977 \sin g$	= -2° 8' 58"	-2° 8' 58"	-2° 8' 58"
$+1'.512 \sin 2g$	= -1"	-2"	-2"
<hr/>			
Apparent Sun	= 90° 12' 1"	90° 16' 55"	90° 21' 51"
Hourly motion	= +2' 27".5		

LONGITUDE OF MOON.

	A	B	C
Mean Arguments:—			
l = Moon's anomaly	= 346° 31' 42"	347° 37' 1"	348° 42' 21"
$2l$	= 333° 3' 23"	335° 14' 2"	337° 24' 42"
D = Moon—Sun	= 357° 46' 46"	358° 47' 43"	359° 48' 40"
$2D$	= 355° 33' 32"	357° 35' 26"	359° 37' 20"
$4D$	= 351° 7' 4"	355° 10' 52"	359° 14' 40"
l' = Sun's anomaly	= 270° 25' 3"	270° 29' 58"	270° 34' 54"
F = Moon—Node	= 173° 30' 18"	174° 36' 27"	175° 42' 36"
$2F$	= 347° 0' 36"	349° 12' 54"	351° 25' 12"
<hr/>			
$2D-l$	= 9° 1' 50"	9° 58' 25"	10° 54' 59"
$2D-2l$	= 22° 30' 8"	22° 21' 24"	22° 12' 39"
$2D-l-l'$	= 98° 36' 47"	99° 28' 26"	100° 20' 5"
$2D+l$	= 342° 5' 14"	345° 12' 27"	348° 19' 40"
$2D-l'$	= 85° 8' 29"	87° 5' 28"	89° 2' 27"
$l-l'$	= 76° 6' 39"	77° 7' 3"	78° 7' 27"
$l+l'$	= 256° 56' 45"	258° 7' 0"	259° 17' 15"
$2F-l$	= 0° 28' 54"	1° 35' 53"	2° 42' 52"
$2D-2F$	= 8° 32' 56"	8° 22' 32"	8° 12' 8"
$4D-l$	= 4° 35' 22"	7° 33' 51"	10° 32' 20"

Moon's equations (to be applied to the mean longitude of moon.)

	A	B	C
$+22640'' \sin l$	$= -5274''.3$	$-4855''.0$	$-4434''.0$
$+769'' \sin 2l$	$= -348''.4$	$-322''.1$	$-295''.4$
$+4586'' \sin (2D-l)$	$= +719''.8$	$+794''.3$	$+868''.5$
$-125'' \sin D$	$= +4''.8$	$+2''.6$	$+0''.4$
$+2370'' \sin 2D$	$= -183''.5$	$-99''.6$	$-15''.6$
$-669'' \sin l'$	$= +669''.0$	$+669''.0$	$+669''.0$
$+212'' \sin (2D-2l)$	$= +81''.1$	$+80''.6$	$+80''.7$
$+206'' \sin (2D-l-l')$	$= +203''.7$	$+203''.2$	$+202''.7$
$+192'' \sin (2D+l)$	$= -59''.1$	$-49''.0$	$-38''.8$
$+165'' \sin (2D-l')$	$= +164''.4$	$+164''.8$	$+165''.0$
$+148'' \sin (l-l')$	$= +143''.7$	$+144''.3$	$+144''.8$
$-110'' \sin (l+l')$	$= +107''.2$	$+107''.7$	$+108''.1$
$-85'' \sin (2F-l)$	$= -0''.7$	$-2''.4$	$-4''.0$
$+59'' \sin (2D-2F)$	$= +8''.8$	$+8''.6$	$+8''.4$
$+39'' \sin (4D-l)$	$= +3''.1$	$+5''.1$	$+7''.1$
Total -ves	$= -5866''.0$	$-5328''.1$	$-4787''.8$
„ +ves	$= +2105''.6$	$+2180''.2$	$+2254''.1$
Total inequalities	$= -3760''.4$	$-3147''.9$	$-2533''.7$
	$= -1^\circ 2' 40''.4$	$-0^\circ 52' 27''.9$	$-0^\circ 42' 13''.7$
Mean Moon	$= 90^\circ 7' 45''.4$	$91^\circ 13' 38''.3$	$92^\circ 19' 31''.2$
∴ True Moon on orbit	$= 89^\circ 5' 5''.0$	$90^\circ 21' 10''.4$	$91^\circ 37' 17''.5$
Ascending Node	$= 276^\circ 37' 27''.1$	$276^\circ 37' 11''.2$	$276^\circ 36' 55''.4$
$F_1 = M - \Omega$	$= 172^\circ 27' 37''.9$	$173^\circ 43' 59''.2$	$175^\circ 0' 22''.1$
$2F_1$	$= 344^\circ 55' 15''.8$	$347^\circ 27' 58''.4$	$350^\circ 0' 44''.2$
$-417'' \sin 2F_1$	$= +0^\circ 1' 48''.5$	$+0^\circ 1' 30''.5$	$+0^\circ 1' 12''.3$
Moon on orbit	$= 89^\circ 5' 5''.0$	$90^\circ 21' 10''.4$	$91^\circ 37' 17''.5$
Apparent Moon	$= 89^\circ 6' 53''.5$	$90^\circ 22' 40''.9$	$91^\circ 38' 29''.8$
Average hourly motion	$= +0^\circ 37' 54''.1$		

Instant of conjunction is 9.8 mins. before B, i.e. at 9h 50m A.M. G.M.T. or 2h 58m P.M. Kuruksetra time.

Arguments for Latitude of Moon.

	A	B	C
F_1	$= 172^\circ 27' 38''$	$173^\circ 43' 59''$	$175^\circ 0' 22''$
$2D-2F$	$= 8^\circ 32' 56''$	$8^\circ 22' 32''$	$8^\circ 12' 8''$
$F_1+2D-2F$	$= 181^\circ 0' 34''$	$182^\circ 6' 31''$	$183^\circ 12' 30''$
l'	$= 270^\circ 25' 3''$	$270^\circ 29' 58''$	$270^\circ 34' 54''$
F_1-l'	$= 262^\circ 2' 35''$	$263^\circ 14' 1''$	$264^\circ 25' 28''$
F_1+l'	$= 82^\circ 52' 41''$	$84^\circ 13' 57''$	$85^\circ 35' 16''$
l	$= 346^\circ 31' 42''$	$347^\circ 37' 1''$	$348^\circ 42' 21''$
F_1-l	$= 185^\circ 55' 56''$	$186^\circ 6' 58''$	$186^\circ 18' 1''$
F_1-2l	$= 199^\circ 24' 14''$	$198^\circ 29' 57''$	$197^\circ 35' 40''$
$F_1+2D-2F-l'$	$= 270^\circ 35' 31''$	$271^\circ 36' 33''$	$272^\circ 37' 36''$
$F_1+2D-2F+l'$	$= 91^\circ 25' 37''$	$92^\circ 36' 29''$	$93^\circ 47' 24''$
$F_1+2D-2F-l$	$= 194^\circ 28' 52''$	$194^\circ 29' 30''$	$194^\circ 30' 9''$

LATITUDE OF MOON.

	A	B	C
+18518".5 sin F_1 =	+2429".7	+2021".5	+1612".0
+528.3 sin ($F_1 + 2D - 2F$) =	-9".3	-16".4	-29".6
-25.0 sin ($F_1 - l'$) =	+24".7	+24".8	+24".9
+23.8 sin ($F_1 + l'$) =	+23".6	+23".7	+23".7
+23.2 sin ($F_1 - l$) =	-2".4	-2".5	-2".6
-23.6 sin ($F_1 - 2l$) =	+7".8	+7".5	+7".1
+22.1 sin ($F_1 + 2D - 2F - l'$) =	-22".1	-22".1	-22".1
-10.4 sin ($F_1 + 2D - 2F + l'$) =	-10".4	-10".4	-10".4
-15.4 sin ($F_1 + 2D - 2F - l$) =	+3".9	+3".9	+3".9
Total +ves =	+2489".7	+2081".4	+1671".6
„ -ves =	-44".2	-54".4	-64".7
Total =	+2445".5	+2027".0	+1606".9
∴ Latitude =	+40' 45".5	+33' 47".0	+26' 46".9
Average hourly variation =	-3' 29".6.		

Horizontal parallax.

$$P = 3422".7 + 186".6 \cos l + 10".2 \cos 2l + 34".3 \cos (2D - l) \\ + 28".3 \cos 2D + 3".1 \cos (2D + l)$$

B

$$\begin{aligned} +186".6 \cos l &= +182".3 \\ +10".2 \cos 2l &= +9".3 \\ +34".3 \cos (2D - l) &= +33".8 \\ +28".3 \cos 2D &= +28".3 \\ +3".1 \cos (2D + l) &= +3".0 \\ \text{Constant} &= 3422".7 \end{aligned}$$

$$\text{Total} = 3679".4$$

$$\therefore \text{Moon's horizontal parallax} = 61' 19".4$$

$$\text{Moon's Semi-diameter} = 16' 42".4$$

$$\text{Sun's Semi-diameter} = 16' 1".4$$

CALCULATION OF THE ECLIPSE FOR LATITUDE $33\frac{1}{2}^\circ$ N. AND THE LONGITUDE OF KURUKSETRA.

	A	B	C
Long. of Mean Sun =	92° 21' 0"	92° 25' 55"	92° 30' 51"
Local time =	1h 8m P.M.	3h 8m P.M.	5h 8m P.M.
„ „ in degrees =	17° 0' 0"	47° 0' 0"	77° 0' 0"
∴ Sid. time or R.A. of meridian =	109° 21' 0"	139° 25' 55"	169° 30' 51"

$$\text{Obliquity of the ecliptic (3928 B.C.)} = 24^\circ 6' 15''$$

Long. of culminating pt. of the ecliptic =	107° 46' 25"	136° 50' 5"	168° 32' 16"
Dec. of culminating pt. =	+22° 53' 11"	+16° 13' 25"	+4° 39' 18"
Lat. of place =	+33° 30' 0"	+33° 30' 0"	+33° 30' 0"
Z. dist. of cul. point =	10° 36' 49"	17° 16' 35"	28° 50' 42"
Ecliptic angle with meridian (θ') =	82° 13' 23"	71° 55' 36"	66° 19' 23"
Z. dist. of nonagesimal (ZN) =	10° 31' 9"	16° 23' 58"	26° 13' 18"

	A	B	C
Parallax in latitude	= $-11' 11''.8$	$-17' 18''.9$	$-27' 6''.0$
Lat. of Moon	= $+40' 45''.5$	$+33' 47''.0$	$+26' 46''.9$
Corrected Latitude	= $+29' 33''.7$	$+16' 28''.1$	$-0' 19''.1$
1st diff.	= $-13' 5''.6$	$-16' 47''.2$	
2nd diff.	=	$-3' 41''.6$	
\therefore corrected latitude = $16' 28''.1 - (14' 56''.4)t - (1' 50''.8)t^2 = Y$, where t is measured from B and is in units of 2 hrs.			
Culminating point			
—nonagesimal	= $1^\circ 27' 9''$	$5^\circ 30' 40''$	$12^\circ 28' 19''$
Culminating point	= $107^\circ 46' 25''$	$136^\circ 50' 5''$	$168^\circ 32' 16''$
\therefore Nonagesimal	= $106^\circ 19' 16''$	$131^\circ 19' 25''$	$156^\circ 3' 57''$
App. Sun	= $90^\circ 12' 1''$	$90^\circ 16' 55''$	$90^\circ 21' 51''$
N— \odot	= $16^\circ 7' 15''$	$41^\circ 2' 30''$	$65^\circ 42' 6''$
ZN	= $10^\circ 31' 9''$	$16^\circ 23' 58''$	$26^\circ 13' 18''$
and Moon's horizontal parallax	= $3679''.4$		
\therefore Parallax in long.	= $-16' 44''.4$	$-38' 37''.6$	$-50' 8''.4$
Long. of Moon	= $89^\circ 6' 53''.5$	$90^\circ 22' 40''.9$	$91^\circ 38' 29''.8$
Corrected Moon	= $88^\circ 50' 9''.1$	$89^\circ 44' 3''.3$	$90^\circ 48' 21''.4$
App. Sun	= $90^\circ 12' 1''$	$90^\circ 16' 55''$	$90^\circ 21' 51''$
(\odot — \odot)	= $-1^\circ 21' 52''$	$-0^\circ 32' 52''$	$+0^\circ 26' 30''$
1st diff.	= $+49' 0''$	$+59' 22''$	
2nd diff.	=	$+10' 22''$	
\therefore (\odot — \odot)	= $-0^\circ 32' 52'' + (54' 11'')t + (5' 11'')t^2 = X$		
Sum of Semi-diameters	= $1964'' = (M+S)$		
Diff. of „ „	= $41'' = (M-S)$		

Kurukṣetra mean time.	X (= \odot — \odot)	Y (= lat. of moon)	$\sqrt{X^2 + Y^2}$	
3h 8m P.M.	$-1972''$	$+988''$	2206"	
3h 38m P.M.	-1140	$+757$	1369	-837
4h 8m P.M.	-269	$+512$	578	-791
4h 38m P.M.	$+640$	$+254$	689	$+111$
5h 8m P.M.	$+1590$	-19	1590	$+901$
5h 38m P.M.	$+2577$	-305	2595	$+1005$

Nearest approach is $.37 \times 30$ mins. after 4.8 P.M.

i.e. at 4.19 P.M., Minimum dist. = $521''$

Magnitude of eclipse = $.735 = 8.8$ Indian units.

Time of beginning = $3h 8m + \frac{2206-1964}{837} \times 30$ mins.

= $3h 8m + 9m = 3h 17m$ P.M.

Time of ending = $5h 8m + \frac{1964-1590}{1005} \times 30$ mins.

= $5h 8m + 11m = 5h 19m$ P.M.

THE SAME CALCULATIONS FOR THE LAT. OF PLACE = $35\frac{1}{2}^{\circ}$ N.

	A	B	C
Long. of cul. point of the ecliptic =	$107^{\circ} 46' 25''$	$136^{\circ} 50' 5''$	$168^{\circ} 32' 16''$
Ecliptic angle with meridian (θ') =	$82^{\circ} 13' 23''$	$71^{\circ} 55' 36''$	$66^{\circ} 19' 23''$
Dec. of cul. point =	$+22^{\circ} 53' 11''$	$+16^{\circ} 13' 25''$	$+4^{\circ} 39' 18''$
Lat. of place =	$35^{\circ} 30' 0''$	$35^{\circ} 30' 0''$	$35^{\circ} 30' 0''$
Z. dist. of cul. point = ZC	$12^{\circ} 36' 49''$	$19^{\circ} 16' 35''$	$30^{\circ} 50' 42''$
Z. dist. of nonagesimal = ZN	$12^{\circ} 29' 44''$	$18^{\circ} 17' 25''$	$28^{\circ} 0' 20''$
Parallax in lat. =	$-13' 16''.1$	$-19' 14''.7$	$-28' 47''.7$
Moon's lat. =	$+40' 45''.5$	$+33' 47''.0$	$+26' 46''.9$
Corrected latitude =	$+27' 29''.4$	$+14' 32''.3$	$-2' 0''.8$
1st diff. =	$+1649''$	$+872''$	$-121''$
2nd diff. =	$-777''$	$-216''$	$-993''$
Y = Corrected latitude = $872'' - 885''t - 108''t^2$, where t is measured from B in units of two hours.			
Cul. pt.—nonagesimal =	$1^{\circ} 44' 4''$	$6^{\circ} 11' 32''$	$13^{\circ} 20' 9''$
Culminating pt. =	$107^{\circ} 46' 25''$	$136^{\circ} 50' 5''$	$168^{\circ} 32' 16''$
∴ Nonagesimal App. Sun =	$106^{\circ} 2' 21''$	$130^{\circ} 38' 33''$	$155^{\circ} 12' 7''$
N—☉ =	$90^{\circ} 12' 1''$	$90^{\circ} 16' 55''$	$90^{\circ} 21' 51''$
N—☉ =	$15^{\circ} 50' 20''$	$40^{\circ} 21' 38''$	$64^{\circ} 50' 16''$
ZN =	$12^{\circ} 29' 44''$	$18^{\circ} 17' 25''$	$28^{\circ} 0' 20''$
Horizontal parallax (Moon's—Sun's) = $3670''.6$			
Parallax in long. =	$-16' 18''.1$	$-37' 36''.9$	$-48' 53''.1$
Long. of Moon =	$89^{\circ} 6' 53''.5$	$90^{\circ} 22' 40''.9$	$91^{\circ} 38' 29''.8$
Corrected Moon =	$88^{\circ} 50' 35''.4$	$89^{\circ} 45' 4''.0$	$90^{\circ} 49' 36''.7$
Sun =	$90^{\circ} 12' 1''$	$90^{\circ} 16' 55''$	$90^{\circ} 21' 51''$
(☾—☉) =	$-1^{\circ} 21' 26''$	$-0^{\circ} 31' 51''$	$+0^{\circ} 27' 46''$
=	$-4886''$	$-1911''$	$+1666''$
1st diff. =	$+2975''$		$+3577''$
2nd diff. =	$+602''$		
X = (☾—☉) = $-1911'' + 3276''t + 301''t^2$			
Sum of Semi-diameters = $1964'' = (M+S)$			
Diff. of Semi-diameters = $41'' = (M-S)$			

Kuruksetra mean time.	X	Y	$\sqrt{X^2+Y^2}$
3h 8m P.M.	-1911"	+ 872"	2101"
3h 23m P.M.	-1497	+ 760	1679
3h 38m P.M.	-1073	+ 644	1251
3h 53m P.M.	- 640	+ 525	828
4h 8m P.M.	- 198	+ 403	449
4h 23m P.M.	+ 254	+ 277	376
4h 38m P.M.	+ 715	+ 148	730
4h 53m P.M.	+1186	+ 15	1186
5h 8m P.M.	+1666	- 121	1670
5h 23m P.M.	+2156	- 260	2172

$$\text{Time of beginning} = \frac{2101-1964}{422} \times 15 \text{ min.} = 4.87 \text{ min. after 3-8 P.M.} \\ = 3-13 \text{ P.M.}$$

$$\text{Time of ending} = \frac{1964-1670}{502} \times 15 \text{ min.} = 8.79 \text{ min. after 5-8 P.M.} \\ = 5-17 \text{ P.M.}$$

Duration of eclipse = 2h 4m.

Minimum dist. bet. the centres = 361" which occurs at 4-18 P.M.

Magnitude of eclipse = 0.792 = 9.5 units.

APPENDIX III.

*A Note on a Method of Finding a Central Eclipse
near a Past Date.*

The problem of the paper to which this is an appendix was to find a central solar eclipse on the summer solstice day visible in Northern Punjab, within the range 4000 B.C. to 2400 B.C. As shown in the body of the paper a central solar eclipse happening on the 21st July, 3146 B.C. obtained by a pure chance, formed the starting point for further calculations. A method now occurs to me which shows that a chronologist need not depend on any such chance. Further he need not depend on a book like Oppolzer's in which all eclipses are calculated from 1200 B.C. up to the present times. The equations for the moon's elements used by Oppolzer, were those given by Hansen, which have been thrown away by international astronomers. Hence Oppolzer's great work has become somewhat valueless. We have now to use Newcomb's equations for the sun's elements and Brown's for those of the moon. To undertake another great work like that of Oppolzer with the most up to date system of astronomical constants should be now considered unnecessary on the score of the labour it entails, in the light of the elegant method presented in this note.

Problem 1. To find a central solar eclipse near the date 4000 B.C., happening on the summer solstice day and visible from the Northern Punjab.

Here we are to remember that the longitude of the ascending node should be about 85° or that of the descending node about 95° , on the day of the eclipse if this is to be visible from the Northern Punjab.

(a) We first work out the shifting of the equinoxes from 4001 B.C. to the present time say 1940 A.D. This works out to have been $82^\circ 27' 23''$ nearly. Hence what was 90° of the longitude of the sun in 4001 B.C., in 1940 would become $172^\circ 27' 23''$. The sun has this longitude now about the 16th September.

(b) Now on looking up the nautical almanacs, we find that there was a new moon on the 15th September, 1936.

(c) Again from 4001 B.C. to 1940 A.D., the number of years elapsed = 5940. The correct lunisolar cycles in sidereal years we should use, are 1939 years and 160 years.

$$\text{Now } 5940 = 1939 \times 3 + 123.$$

Hence the elapsed years 5940, have to be increased by 37 years and we have—

$$5977 = 1939 \times 3 + 160.$$

(d) We then apply 5977 sidereal years or 2,183,137 days backward to the date, 15th September, 1936, and arrive at the date 4042 B.C., July 26.

(e) On this day at G.M.N. the longitude of the moon's ascending node was $= 321^{\circ} 42' 36''.82$.

(f) We now use the eclipse cycle of 19 tropical years in which the node's position is decreased by $7^{\circ} 32'$ nearly. We want to reduce the longitude of $321^{\circ} 43'$ of the node to about 275° , i.e. by $46^{\circ} 43'$ which comprises $7^{\circ} 32'$ six times nearly. Hence, we have to come down by 19×6 or 114 years. The year arrived at is 3928 B.C. Calculation of the eclipse on the summer solstice day of this year may now proceed as shown in the body of the paper, remembering that in 114 years (tropical) there are 41,638 days.

Problem 2. To find the central solar eclipse which happened on the autumnal equinox day, visible in Northern Punjab near about the year 1400 B.C.

On the autumnal equinox day the sun attains the longitude of 180° . In order that the eclipse may be visible in Northern Punjab, the ascending node should have the longitude of about 175° or the descending node 185° nearly.

(a) From 1401 B.C. till 1940 A.D. the shifting of the equinoxes becomes $46^{\circ} 17' 26''$. Hence what was 180° of longitude of the sun in 1401 B.C., has become $226^{\circ} 17' 26''$ in present times. This corresponds to the date of November, 10 of our times.

(b) On looking up nautical almanacs we can find that a new moon happened on November, 10, 1931 A.D.

(c) Now the elapsed years, 3340, till 1940 A.D. needs be adjusted a little as before. We have to increase it by 39 years, and we have,

$$3379 = 1939 + 160 \times 9.$$

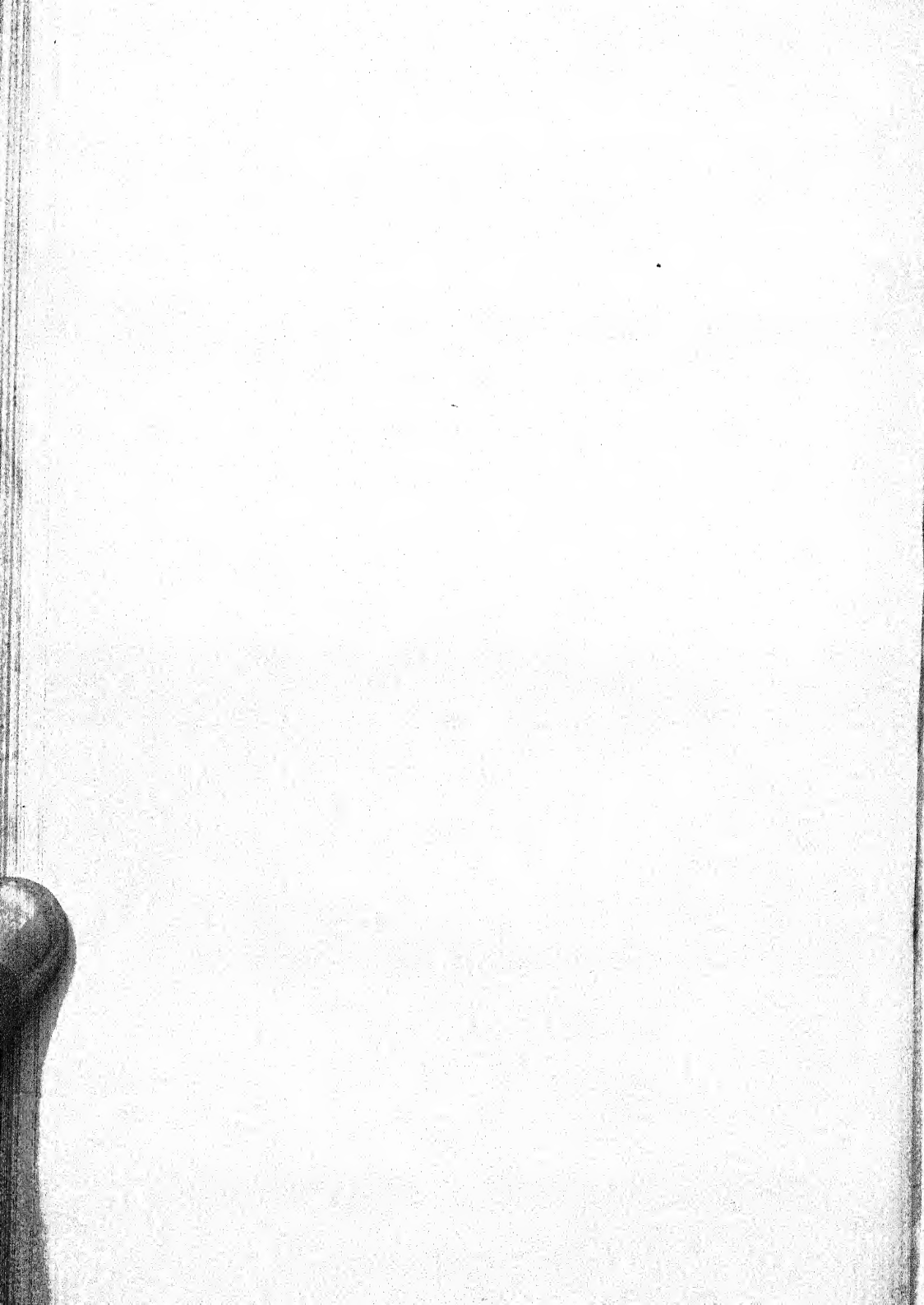
(d) We apply to the 10th November, 1931 A.D., 3379 sidereal years or 1,234,201 days backward, and arrive at the date 1449 B.C., October 5.

(e) On this date the longitude of the ascending node at G.M.N. was $= 201^{\circ} 2' 23''$.

(f) We have to reduce this longitude of the node to 175° nearly by using our eclipse cycles. Now by our cycle of 19 years repeated 4 times we can reduce it by $30^{\circ} 8'$ to $170^{\circ} 54'$ by coming down to 1373 B.C. We have now to raise it from $170^{\circ} 54'$ by a further coming down by the eclipse cycle of 372 years, to $175^{\circ} 15'$ nearly for the year 1001 B.C. as in Oppolzer's finding. Altogether we had to come down by $19 \times 4 + 372 = 448$ tropical years.

Hence by the method thus illustrated, we can find near about any past date, any sort of solar eclipse we have any record of, however vague it may be. There is thus no necessity for finding all the solar eclipses from so far back a date as 4000 B.C. up to our modern times.

I trust the attention of astronomers and chronologists all over the world will be drawn to the method presented here for finding an eclipse of a back date, and hope they would further develop it and remove from it any flaws that they may discover.



Some Beliefs and Customs relating to Birth among the Santals.

By W. J. CULSHAW.

The ordinary way of announcing the birth of a new child among the Santals is to say, 'Nawa peraye heč akana', 'the new relation has come'. The infant is regarded as a definite asset to the family, with certain exceptions noted later, and they commonly speak of children as the gift of 'Cando Boŋga', the supreme God; hence a birth is an occasion for rejoicing and congratulation. A villager to whom the announcement of a new birth is made will as likely as not respond with a question, 'What is it? Is it one who carries on the shoulder (a boy), or one who carries on the head (a girl)?' There are other figurative ways of referring to the sex of children, though these are used at other times. Thus, when a father is talking about the number of children he has, he will often say, 'Pe iŋi ar pe erba menak-kotiña', 'I have three girls and three boys'. 'Iŋi' is a cultivated millet (*Panicum crusgalli*, L.) used figuratively to refer to girls, and 'erba' is a seldom cultivated grain (*Setaria italica*, Kunth.) used as a term for boys.

It may be that the birth of the child has been long looked for. Women may resort to shrines famous in the locality for granting the boon of children and making an offering. There is a hill situated in Raniband Thana of the Bankura district at the summit of which resides such a deity and cases are reported of Santal husband and wife making the climb to the summit together. More often the husband feigns a certain indifference in such cases, but his mother is not likely to let matters rest, even if the wife herself should wish to do so, and it is a fairly common thing for medicine to be taken to ensure the birth of a child. People who have knowledge of these remedies are well known in their own localities, and their medicines are their own closely guarded secrets. One medicine which has to be taken during the menstruation period is said to ensure the birth of a boy. In any event, from the time when pregnancy is suspected, the expected newcomer begins to exercise influence on the life of the home, and especially over the actions and conduct of the parents. A pregnant woman is called 'poŋti', the common Bengali term, but here too the Santal love of figurative speech finds full play, and other common terms are 'bharti hormo' (full body), 'bhari hormo' (heavy body), and 'bar jivi' (two souls). Her movements are restricted; she must not go anywhere when the sun is directly overhead; nor will she

go anywhere alone at sunset. The restriction against crossing a river is by some said to hold only in the case of a woman pregnant for the first time. She must not sit on the verandah of the house with her legs hanging down, her hair loose, and any portion of her cloth hanging loosely from her body. They themselves ascribe these rules to the desire to escape the influence of 'bhuts'. Nor must she walk over the straw rope used in binding rice granaries. She cannot take life, nor look on a dead body. She must not weep when someone dies. Nor can she go out during an eclipse of the moon, nor look at it from the house. A number of restrictions are enjoined to influence the child in one way or another. Thus when the pregnant woman hears thunder, she will clasp the 'gurgu' (the cylindrical grinding stone for grinding the spices) to her abdomen, and feels that by so doing she will prevent her child from growing up a coward. She will not take anything not belonging to her without asking for it, lest her child become a thief. Certain actions may influence the physical appearance of the child. She will not break off the fork of a forked piece of turmeric, lest her child be born with forked fingers. It is not good to look on the image of a god (these are not in Santal homes or villages, but many Santals now live among Hindu neighbours), for that is something with a semblance of life, yet it is dead. If she sees an elephant, her child may have ears large like those of elephants. If a monkey, then the child may have a nose wide-nostrilled and 'squashed'; if a snake, then the child may be always putting out its tongue. The pregnant woman's taste in food should be humoured, or her child's mouth will for ever 'water', he will be a great 'slobberer'. Some of these things throw an interesting light on the Santal's idea of what is seemly in appearance. I have not been able to come across any diet restrictions with a basis of magic; some foods are particularly nourishing, and that is all. One of my friends can remember a case in his own family when a child was born without an anus. When the women were discussing this, they put it down to the fact that the mother had eaten the flesh of flying fox during pregnancy; the reason being the belief that flying foxes are without this feature in their anatomy. In this case, which occurred about thirty years ago, the child was thrown away while it was still alive.

The father of the child has his part to play during his wife's pregnancy. There is no ceremonial separation from his wife, and intercourse would appear to be common up to about the sixth month. There is a strong sentiment also against intercourse with any other woman during the time. There appears to be no rule as to when intercourse may be resumed after the birth of the child. The father must also observe the taboo against taking life, and he must avoid all contact with dead bodies. He cannot go to a house in which a death has taken place, nor can he carry a body, or take any part in funeral ceremonies. He

may go out to the annual hunt with the other men, but cannot kill, nor can he be asked to carry a kill; he cannot eat the flesh of the head of any animal killed in the hunt, or of any animal offered in sacrifice.

One custom suggests that the child has some status before birth. Bodding in his Dictionary relates that if a 'Jom Sim' festival is being observed by the family of a pregnant woman, this being a festival when all the members of a family living in a neighbourhood are invited, the pregnant woman is served with two platefuls of rice, in recognition of the fact that she is 'bar jivi'. I have not been able to obtain personal confirmation of this; the 'Jom Sim' is but rarely observed nowadays, and no one whom I have questioned seems to know of this custom. As with all people, the women will speculate about the sex of the coming child. If the woman begins to look rather sickly, and especially if she is thin about the neck, then they say she will have a boy. The 'quickenings' is not marked in any special way, but that it does have some effect on the attitude of the people to the expected child is shown by the fact that when a woman with child dies, special precautions have to be taken only in cases when the death takes place after the quickening. In such cases, the husband has to cut open the abdomen of the dead woman; the foetus is removed and buried separately behind the house, and the ordinary funeral rites are carried out over the body of the mother. Should this for any reason not have been done, the woman is said to become a 'curin'; her spirit inhabits the banks of streams and waylays those who pass, especially young men. Women wear iron bangles, which serve the purpose (among other things) of protection against the 'curin'.

For the delivery a midwife is engaged. She may be someone connected with the family, though in such cases it is much better to employ someone who is a 'classificatory' grandmother, rather than anyone belonging to the father's or mother's generation; this is because in the presence of the latter generation the woman has to observe certain rules of decorum and it will be a shameful thing for them to see her in her nakedness. The midwife is generally called a 'dhai', also an 'ojha budhi' (old medicine woman), and 'daḷ dul budhi' (the water pouring old woman). She is always a Santal, and she is sent for when the pains come; she is either an inhabitant of the village, or of one very near at hand. All the other matrons of the village are informed at the same time, and gather, as they say, to give courage to the mother now that her time has come. In the case of a dispute which I once helped to settle, the aggrieved husband gave as proof of the infidelity of his wife the fact that her mother (to whose protection the girl had fled) did not inform any of the villagers at the time when the baby was born. The day of delivery is known as 'durup din' (sitting day), which illustrates

the mode of birth. Birth takes place in the ordinary dwelling-house, and the woman generally sits on the floor on which a mat may be spread. There would seem to be no rule, however, against her sitting on a string bed and this sometimes happens. Whichever it be, the woman generally keeps to the same place, either floor or bed, for the birth of all her children. She is supported from the back by another woman, who again may be either two generations above her, or one of her own generation, either husband's sister, or husband's brother's sister, but not by her mother-in-law or by an aunt. The characteristic work of the midwife is to cut the umbilical cord, which is not done normally until after the placenta has fallen. The child is not put to the mother's breast until after the cord is cut. It is cut by an arrow, with a coin put under it, which may be a pice, or even an eight anna piece, according to the financial condition of the family. This coin is handed over to the midwife. Midwives have a way of being able to tell the sex of further children by a reading of the signs on the umbilical cord, according to the position of certain irregularities in the surface, caused, I believe, by the twisting or congestion of blood vessels. They can also in certain cases determine the sex of subsequent children, or of the next child, according to the place at which the cord is cut. In cases of difficult delivery, should there be an 'ojha' near at hand, resort may be had to him; one method he adopts is to take a square of the bark of a plantain tree in his hand, about six inches square, and prick it repeatedly with a needle, saying his 'mantra' the while. This he can do in his own house. Another method adopted is to give the mother water to drink which has been poured down a dagger standing upright. Another method is the tying of a root to the hair of the mother. This root with the hair must be cut away as soon as the birth has taken place, otherwise they say, all the mother's entrails will come out as well. In such cases also the husband comes in for a certain amount of chaffing from the women who are in the 'joking relationship' with him; they accuse him of having done something irregular when he was with his wife at the time when conception took place, thus having caused her difficulties. No men are admitted to the room at the time of delivery. The husband has to keep himself at hand in the courtyard, one of his duties being to keep handy the materials for lighting a fire in the house after the birth, which fire will be used for 'sekao', massaging his wife's abdomen, and the infant, after birth. No fire is kept in the house at the time of the birth. As soon as the child is born the women call out, and the husband takes a large stick and repeatedly beats the roof with it, shouting out to drive away the 'bhuts'. He is admitted to the house as soon as the floor is cleaned up and his wife resting, whereupon he has to dig the hole in which the afterbirth is buried. This is buried in the house, at any place which is not directly under a rafter,

and he generally digs the hole with a ploughshare. The Santal will often refer to the place of his birth as his 'buka topa ato', the village where his cord was buried.

As soon as the child is born, he is expected to cry out. If he doesn't then strenuous efforts are made to restore his life. The midwife chews pepper and garlic, and blows into the child's mouth, nostrils and ears, and will persist for a long time; the others in the house will seek to waken the child by making a great noise on any brass plates and cups there may be in the house. (None of the ordinary household goods or utensils are removed from the house before the delivery takes place.)

Though it is probably true to say that all births are welcome, not all are welcome to the same degree. People are most pleased when the first child is a boy. If a woman has a succession of girls, she is soon likely to feel the effects of the disappointment of her husband's relations. A third or fourth daughter born into a house where the husband's mother is supreme does not in all cases have an extraordinary good chance of survival. A child born with teeth is considered highly unfortunate—'this child will eat us', they say. People are reluctant to admit that nowadays such children are thrown out, though they say such things 'used to happen'. They probably still do, though I have no direct evidence of the fact. In connection with another case we saw that a child was admittedly thrown away, about thirty years ago. All deformities are not regarded very seriously. One boy known to me was born with an additional finger on each hand as well as an additional toe on each foot. The additional fingers were cut off, though the toes were left; I cannot say whether there was any deeper significance in this beyond a desire to improve appearances. But an old man who was told of this case expressed disapproval. 'If Cando', he said, 'gives me a child with six fingers, who am I to cut off one of them?' Premature children are supposed to develop a big thirst in later life. There is also a belief that children born in the sixth month or eighth month will die, but those born in the seventh or ninth month will live. (The period of gestation is calculated as ten months.)

Twins are not regarded as a misfortune. No special ceremonies are performed at the birth of twins, but they are regarded as 'bonga' children, and there are special rules about the names to be given to twins, which are noted below. A child born on a Sunday is endowed with disconcerting powers. If you look in his direction when you are eating, you are liable to be seized with a violent attack of cramps. The 'Chatia' (Naming) ceremony of the child must take place during the month in which he is born. In connection with this custom, a child who is unfortunate enough to be born on the night of the new moon is taken outside to the dung heap outside the house, and according to Bodding he is placed upon it and then swept up by the midwife

into a winnowing fan by means of a broom, and then taken in to the mother. If we add that until this operation is performed the cord is not cut, it will be seen that the operation presents some difficulties. My information is that it is carried out more or less symbolically, without a rigid adherence to formula on all occasions. But the precaution is a necessary one, lest the child should be widowed in after-life; a 'token' sweeping up is as effective as the actual. Children born in a caul are regarded as unfortunate. When a woman conceives after the birth of a previous child before her menstruation begins again, the phrase used to describe such births is 'potomte janam', which signifies strictly being born in a caul, though such children are obviously not all born in cauls. Perhaps there is here an indication of an original belief that all such births took place in a caul. Be that as it may, nowadays all births which are described by the phrase 'potomte janam' are unfortunate. In such cases the blacksmith is asked to make a miniature kudi (spade), taŋga (axe), and cimti (pincers); these are tied round the child's waist, where they remain until he or she is about five years old. This precaution is taken against the danger of the child being struck by a thunderbolt. One might add here a Santal saying which is used to say that a woman has got over the dangers of childbirth. It is 'Rohor dare khone argō akana', literally, 'She has come down from the dry tree'. It has been suggested to me that this may have some reference to a custom in some parts of the world for a woman to climb a tree when delivery is difficult; I can find no trace of such a belief among the Santals. The only explanations of the saying offered to me are that as it is dangerous to climb on the dry branch of a tree, so childbirth is dangerous; and also the simile of a tree which bears fruit applied to a woman who bears children.

Before beginning an account of the various ceremonies related to birth, it is helpful to keep in mind the social purposes served by these ceremonies among the Santals as among all primitive, or for that matter, many advanced communities. These purposes may be roughly classified as they affect the new-born child, his parents, or the community into which he is born. So far as the child is concerned, we have seen how much can be done to ensure his future well-being. In addition to this, he must be given some status in the family and community and so be acknowledged by them; this is done through the granting of a name or names. His parents are under an obligation to remove the taboos consequent on the crisis of a birth in the family, which have affected the father no less than the mother. The village community as well as the family has to acknowledge the child, and the village as well as the house is to some extent affected by the period of pollution. It will have been apparent that the Santals are well acquainted with the facts of physical paternity. There does not appear to be any trace in their beliefs

or in their customs of a time when this was not the case. No relations other than the actual parents have any specific parts to play in the ceremonies grouping round the birth of children.

We possess a valuable account of these ceremonies as they were in the Santal Parganas about seventy years ago, in the book written in Santali and published for the first time in 1887 by the Rev. L. O. Skrefsrud of Benagaria, entitled 'The Traditions of the Santals'. It consists of material which he took down from the mouth of an old Santal named Kolean who was his 'guru', in the years 1870-71. It is unlikely perhaps that the book contains a complete account of all ceremonies—it contains no answer to many of the questions which rise to one's mind—yet a comparison of the account with what can be observed at the present day in an area far removed from the Santal Parganas, throws into relief not only some changes of a minor kind but also the extraordinary tenacity with which the Santals are holding to many of their old customs. The best course is to give a translation as literal as possible of the section of the book entitled 'Janam Chaṭiār'. 'Chaṭiār' is translated by Bodding as 'ceremonial cleansing'; the emphasis of the word is not so much on the removal of pollution, which admittedly forms a part of the concept, as on admittance into society, a kind of initiation. It is in fact used for two ceremonies, the 'Janam Chaṭiār' at birth, when the child is named, and the 'Caco Chaṭiār' later on, when the child is granted full status in the community.

The following is a translation: 'Children belong to the sept of the father, not to that of the mother. When a child is born in some village, the village becomes unclean (chut), and until the pollution is wiped out, the people perform no religious ceremonies. In whoever's house a child is born, the house is polluted and until the pollution is wiped out no one in the village will partake of food and drink in that house.

In the case of a boy, they are ceremonially shaved on the fifth day; in the case of a girl on the third day. On the day of the shaving, the father of the child calls together all the poor folk for the ceremonial shaving. They collect at his house and engage a barber for the shaving. He first of all shaves the Næke, then the Kuḍam Næke, the Mañjhi, Paranik, Jog Mañjhi, Jog Paranik, and Goḍet (these are the names of the Santal village officials. It would take us too far from the subject of this paper to enter into any explanation of the terms. They may be translated as follows: Priest, Co-priest—one with slightly different functions,—Headman, Deputy Headman, Censor of Morals, Deputy Censor of Morals, and Village Messenger), after which come all the men of the village, and last of all the father of the child.

Then the barber asks for the new-born child. The midwife carries him out near the door, bringing two leaf-cups (bhāutić), one for water and the other for keeping the hair in. The barber

shaves the child, whereupon the midwife puts the hair into the cup; after which she ties two threads to the arrow with which the child's umbilical cord was cut. The father of the child places oil in the leaf-cup, and takes all the male adults of the village along together to the watering place to bathe. Off they go. When they return the midwife takes the women along to bathe there, taking along with her oil and turmeric, and the arrow with the two threads tied to it. Off they go. At the 'ghat', the midwife sends one of the threads floating away with the child's hair, having first of all made five vermilion marks on the 'ghat'. That is called 'buying the ghat'. She washes the second thread and the arrow, and brings them back to the house when they have all bathed. Back at the house, the midwife soaks the remaining thread in turmeric-water and ties it round the waist of the child. After which the child is placed in its mother's arms, lying on 'atnak' leaves (*Terminalia tomentosa*, W. & A.), the mother sitting under the eaves of the house.

Then the midwife kneads some cowdung with water under the eaves. She then lets it drip on the mother of the child, who takes up a little in her left hand and rubs it on her head, and she also sips a little. Then the mother goes into the house and lays the child down on a string bed. The midwife mixes meal with (adwa) rice and water, three leaf-cups (phuruḳ) full, takes one of them and sprinkles the meal on the four legs of the string bed and throws away the cup. Then with another she sprinkles the meal on the chests of the Naeke, the Kuḍam Naeke, the village Mañjhi, Paranik, Jog Mañjhi, Jog Paranik, and Goḍet. And so with all the men of the village.

The contents of the remaining cup are sprinkled in the same way on the chests of the Naeke's wife, then following in the same order the wives of the Kuḍam Naeke, the Mañjhi, the Paranik, the Jog Mañjhi, the Jog Paranik, the Goḍet, and then all the village women.

Then the old man and woman of the house (i.e. the parents of the child) will ask each other, 'After whom shall we name him?' If it is a boy, they will say, 'We'll give him father's name', and if a girl, 'We'll give him mother's name'. The first-born boy gets the name of his father's father, and the first girl gets the name of her father's mother. The second boy gets the name of his mother's father, and the second girl that of her mother's mother. When those are used up, they get the names of their paternal uncles and aunts and their maternal uncles and aunts.

Then the midwife will come out to the courtyard and announcing the name will make obeisance and say to them, 'From to-day (if it be a boy) call him by this name at the hunting', (if a girl), 'Call her by this name when you say to her, "Come along", as you go to draw water'.

Then they bring out leaf-cups of a brew of 'nim' leaves in rice water to the courtyard; they give to the men first of all in the same order as that already mentioned. And then to the women in the same way. The pollution is wiped out and the child has entered into the circle of relations. After another five days the barber and the midwife alone again shave the child. And with that it is finished.

The midwife receives the following: For a boy, a cloth of three cubits, one mūrī of paddy (1 maund), and one wristlet for cutting the cord. For a girl, a cloth of three cubits, a biṣa of paddy (half the above), and a wristlet for cutting the cord.

So ends our authority. There are several points in this account which call for some comment. To begin with the last statement; the remuneration of the midwives in ancient times seems to have been on a rather lavish scale. Nothing like that amount of paddy would be given nowadays even by well-to-do Santals, who are few and far between. In this southern area of the Bankura district, however, it is still true that the commonly accepted amount of paddy is for a girl only half what it is for a boy. The first sentence in the account indicates that Santal society is patrilinear.

The village is regarded as unclean. At this point it is convenient to mention that the day on which the 'chaṭiār' is performed is by no means as rigid as the account suggests. Thus, the fact that no sacrifices can take place in the village until after the pollution has been removed means that rather than abandon a festival owing to the inopportune arrival of an infant the ceremony may be advanced so as to take place even on the very day of the birth. Another reason why the time may be altered, advanced or even delayed, is owing to pressure of work during the cultivation season. The ceremony will not, however, be performed on an even number of days after the birth. But ordinarily speaking the times are still observed on the days stated; one reason for this, not mentioned in the account, is the fact that rice beer must be brewed to be served to the guests when the naming is over, and it takes three days to brew good beer. 'Haṇḍi' is regarded as a *sine qua non*—as the Santals themselves put it, 'Bukare haṇḍi, jaṇre haṇḍi', 'Rice beer at the time of birth (lit. the umbilical cord) and at the time of funerals (lit. the bone, a reference to burial customs)'. If a family is in a position to do so, they generally also provide a feast for their relations and friends on the occasion. The ceremony is not often delayed beyond the seventh or the ninth day after the birth of the child. In some parts of the area best known to me at least, the Santals distinguish between the two aspects of purification from uncleanness and the admission of the child into society to the extent of having two separate ceremonies; thus the fifth day may be observed as 'um hiloḱ', the day of bathing, and the child be named on the seventh day, the latter

being called the 'chaṭiār', and being the more important socially in that more of the villagers attend. The community consciousness of the Santals has to this extent weakened that it is now the exception rather than the rule for the whole village to turn up on these occasions; the numbers who do will depend to a great extent on the position the parents occupy in the esteem of the community. Another indication of the separation of function in their minds is shown in the words of an old Santal who said, 'On the day of the birth we begin to brew two pots of "haṇḍi"—one being "chut haṇḍi" (pollution-removing) and the other being "chaṭiār haṇḍi" (naming)'.

An interesting corollary to the state of pollution of the house is that if any one should be wearing a charm against illness, he will remove it before going to the house for any reason, lest it lose its power. There is no rule about confining the mother to the house after the birth for a specified time; in fact there are well-authenticated cases, for example, of a woman going to a nearby jungle to gather wood and leaves on the afternoon of the day in which her child was born, and of working in the courtyard the same day. The father, as we have seen, goes into the house almost immediately after the birth. The arrow with which the cord was cut is left standing upright through the strings of the bed on which the infant spends the day, until the time of the 'chaṭiār'. The barber who is 'engaged' is never of a barber caste, in fact such a one would not cut a Santal's hair, but he is always a Santal, generally of the village, though he may be a stranger, and in any case he must belong to a different sept from that of the father. As it is quite possible that all of the village officials will not be present at the 'shaving', it follows that the order in the account is not rigidly adhered to, but in any case the father is still shaved last of the men, and following him the child. The men's faces are shaved, and their hair may be cut; in the case of the child five locks are cut from the head. Two at the front, one to each side of the head, and one from the middle of the back of the head. The hair of the child is still disposed of as stated in the account. (At some time later in life, it is common for cut hairs to be thrown away at the foot of a clump of bamboo, with the idea that this will cause the hair to grow well, something greatly to be desired in the case of girls.) No special notice is taken of the nails. The sipping of the cowdung meal, and the sprinkling of the meal prepared from rice and water appear to be still carried out in much the same way; though here again there is slackness about times and seasons. The rice meal may be sprinkled on anyone who goes along to the house after the birth has taken place. Similar latitude is observed about the drinking of the brew of nim leaves, which is prepared in the following way: the leaves are roasted and then powdered, then mixed with hot rice-water, i.e. water in which rice has been boiled. It is

served on the day of the birth nowadays in these parts to all members of the household, and to any other women and children who go to the house. Men fight shy of it, and one said to me that it is drunk as a sign of sympathy for the mother, it being a very bitter drink! The mother continues to drink some of it for several days after the birth of the child, and it is supposed to increase the flow of her milk. The reference to the second shaving five days later, when the barber and the midwife return to the house, I have not been able to confirm. It is unknown here. The midwife may indeed stay on for a few days, if the mother is weak, for the purpose of 'sekao', and for this service she is paid extra, and given her food.

One ceremony which commonly takes place on the day of birth has not been alluded to in the account. It may be a recent and a local borrowing. It goes by the name of 'meġ halañ', which may be translated as 'raising the eyes'. The mother and the midwife sit opposite to each other on the floor. The mother fills a leaf-cup with 'paura' (distilled liquor, which unlike rice beer can be stocked for the occasion), and passes it over to the midwife, who takes it in her hands, and throws it away to the left; this is repeated three times.


There are several interesting points to be noted in connexion with naming. It is quite common for the father and mother of the child to talk between themselves before the birth of the child and decide what name they would like to give, but this they will not reveal to anyone else. At the 'chaġiar' one of the assembled company may ask, 'Of what country is he (or she)?' To which question the correct answer is to name the village of the paternal grandparents if the child is going to be named after them, or of the maternal grandparents as the case may be. An exception to the ordinary rule may be made in the case of a child who cries a lot, a fact that shows it is not happy about its own name. These words were once used by a Santal explaining the matter to me, 'Sometimes amongst us children will sleep soundly from the very time that they are born, and sometimes they cry like crows and kites! In that case we get hold of an "ojha" (the word is used loosely here for anyone who knows the method of divination by leaves and oil), to tell us the reason, and say to him, "See what this child is up to—why does he cry?" The "ojha" having asked for oil, reads the signs and will then announce, "Such and such a dead relation is claiming that the child be named after him". This generally happens when we want to name the child after someone on the mother's side; the dead ancestors on the father's side try to prevent this'. The Santal who told me this was actually talking about the birth of twins at that time. He continued, 'To-day the babies didn't cry at all for they were to have "boŋga" names'. There are some confused legends used to explain the current practice about the naming of twins. According to one account, Marañ

Buru (lit. the great spirit—but not a name for the supreme being; one might call him the patron spirit of the Santal tribe) had twelve sisters who were twins. I have also heard it said that the children of Cando were twins. Cando is the name most commonly used now for the supreme spirit; which does not prevent a vague identifying with the sun, and the ascription of children, as in the Santal legend of the sun and the moon. Anyway twins are named after these mythical beings. Names given to girl twins are Cita and Kapur, Dargi and Porgi, Hisi and Dumni; boy twins are named Ram and Lokhon, Loba and Kisur, Cand and Bhaira, Sidho and Kanhu. I have never succeeded in discovering what names are used when a boy and girl are twins. Several whom I have talked with about it have stated categorically that such a thing never happens, and unfortunately I have never myself heard of a case among Santals; it may be that the reluctance to acknowledge the possibility—or reluctance to give information on the subject—is connected with the superstition which regards this as a kind of incest, but the explanation may lie in the simple fact that I have been unlucky.

No Santal escapes with but one name. The name which is attached to him at the time of the 'chaṭiār' is known as his 'bhitri nūtum', or private name. This is given more or less according to the rules of precedence given in Kolean's account, and it makes no difference whether the relation after whom the child will be named is alive or dead. In addition to the private name the child receives at least one 'cetan nūtum' or 'bahna nūtum', a nickname. One reason why this is necessary is the fact that there are certain relations who will never be able to use his 'private name', owing to the relationship in which they stand to the original owner of the name and by which they are precluded from pronouncing the name. It is in fact general, if, for example, a child has been named after his grandfather, who is alive, he will never be called by the grandfather's name until after his death. Nicknames multiply as the child grows, and change too. He often receives them from relations who are in the 'joking relation' with him, and they have no more significance than as playful terms of affection. Hindu names used nowadays by many educated Santals and by Santal boys studying in schools are often assumed by themselves, and perhaps bear some resemblance to their own 'bhitri nūtum'; thus Podo has become Padma Lochan, and Kala has become Kalachand. Many of these names are, however, now becoming naturalized. The following names have all been applied to a friend of mine at one time or another. At his 'chaṭiār' he was given the name Siṅgrai, after the elder brother of his paternal grandfather; from the same time he was also known as Jhongoḷ, this being the 'bahna nūtum' of the same person. After a very short time apparently he became generally known as Thenta, signifying a bundle of mischief. Later on he was known as Sorkar for short,

Daṅgra Sorkar in full. Behind this lay another joke. Sorkar is a name given to people who get some education. Most of that class also give up the eating of beef, but this particular Sorkar was a beef-eater, or so said his friends to tease him!

Kolean has some words about illegitimate children, describing the steps taken to provide them with fathers, but the subject has little more than academic or rather legal interest. Illegitimate children are extremely rare. For one thing abortion is quite often practised; and if the expectant mother allows the child to survive at all then it is usually because she is almost certain that she will be able to compel the father to marry her. There is not often any reluctance to do this. I have heard a story of an illegitimate child about whose paternity there was considerable doubt. All the young men of the village were assembled and the child was set in the midst and told to go to his father, which he did, and they all, one imagines, lived happily ever after. But this remnant of a myth is laughed at by the sceptical, and recognized for what it is, a piece of improving fiction. There is not often much difficulty in getting the partner to 'confess'; and in any event, there are not many secrets kept for long in the typical small hamlet in which the Santals live.





8

REVIEWS OF BOOKS.

THE ARCHAEOLOGY OF GUJERAT. By H. D. SANKALIA.

It was with a desire to learn rather than to criticize, that I opened Mr. Sankalia's book on Gujerat, as there are but few of us who are in the position to instruct a specialist in his own subject, and this desire has in a very large measure been fulfilled. The writing is clear and succinct, the arrangement of the material is excellent, and the work in general is laudably free from the prolix and repetitive manner which so frequently mars a doctorate thesis. I must however confess to one definite disappointment. On the first page of his Introduction he says—'The aim of the present writer, therefore, was to study the entire archaeological material, prehistoric as well as historic, of Gujerat and Kathiawar', I was therefore surprised to find that the sole reference to the prehistoric period was on the fourth page of the same Introduction, where brief mention is made of the work of Bruce Foote, Sarup Vats, G. S. Ghurye and Hiranand Sastri. It is a great pity that such evidence as had been collected by Bruce Foote, of very interesting microlithic sites all over Gujerat and Kathiawar, was not summarized, and a great opportunity for original study, which was afforded by the problem of linking the stone cultures of Gujerat with those of Sind, was not pursued. The Island of Cutch also produces an individual microlithic culture of great interest, which is represented by specimens in the British Museum.

It is a pity also that the work on the extension of the Indus Valley Cultures into Gujerat is not touched on in greater detail. Such an extension is I believe proved, though I have not seen the material, and past experience in this matter has confirmed me in the opinion that, as regards extensions of the Indus Valley Cultures, seeing is believing. I think that it is unlikely that these cultures spread south of the Narbada along the coast; they certainly did not do so inland, the gorges and forests of the Satpuras and the Mahadeo Hills proved an effective barrier for centuries if not for millenia. A point of great interest however is that the Sabarmati River is the source of the uncommon stone amazonite found in jewellery at Mohenjo-daro. As was pointed out by the reviewer in 'Man', 1935, 49 and 1936, 140 and in 'Iraq', Vol. VII, Pt. I, 1940, this green felspar amazonite was found by Bruce Foote near the village of Derol, just north of Ahmedabad, on the Hirapur plateau on the right bank of the Sabarmati. It was from here, not from the Nilgiris as is insisted by some authors, that the people of the Indus Valley got their amazonite, the reason for this being not merely its greater

proximity, but the total absence of this stone in the Nilgiris, which has been attested by the Geological Survey of India.

Mr. Sankalia begins his brief history with the Mauryas, whose influence is proved by the Asokan rock edicts of Junagarh and other less direct but probably reliable evidence. He then feels, in common with most other writers, that the Sungas and Andhras should be mentioned, though he quite rightly does not in any way stretch the evidence to show that they played any real part in the history of Gujerat. He uses his sources well, particularly Tarn, in dealing with the difficult Greek and Saka periods. To what extent the Andhras under Satakarni Gotamiputra occupied Gujerat and Kathiawar, after their clash with the Ksaharatas attested by the Nasik cave inscription, is difficult to say, but archaeological evidence for such occupation appears to be non-existent. It is more likely that Gujerat remained in Saka hands; the incursion of Satakarni Gotamiputra being little more than a successful raid, the Sakas speedily establishing themselves. On page 187, it is stated that—'The symbols—*caitya*, etc.—reveal the early Andhra contact'. The reasoning is not self-evident; these symbols are common on Taxilan coins, accompanied by Kharoshti inscriptions, and are common in any area in which the punch-marked coins almost certainly remained current, and do not indicate any specific cultural contacts.

Once we get to the Guptas, Mr. Sankalia is on firm ground and handles his materials with a sure touch and unfolds the history of Gujerat with clearness and authority. The Gurjjaras, from whom the area has been named, are extremely interesting, but whatever their origin may have been, they were wholly Indian in culture and religion at the time they enter the history of Gujerat.

Having summarized the history of the area the author goes on to deal with the actual archaeological material, the sculpture and the architecture, which unfortunately appears to be the sole archaeological material recorded in many areas in India. Dependent on these are the chapters on Iconography, Cults and Religion. The difficult archaeological problem of the Gop temple has been well reasoned, and the rejection of the Kashmiri influence appears to be on firm grounds, and the date of 5th century A.D. can be regarded as having sound arguments in its favour. The two outstanding temples appear to be the Nilakantha Mahadeva temple at Sunak, late 10th or early 11th century, and the Surya temple at Modhera, middle 11th century. These temples also contain what appear to be the best of the sculptures, but even so they are of indifferent quality. They do not compare with the contemporary Candella sculptures at Khajuraho, let alone with the classical sculptures of Ellora and Elephanta. The Vimala and Tejahpala temples at Abu, which the reviewer has seen, are marvels of intricate carving in marble,

but they contain no great sculpture. Tejahpala and his two wives (fig. 77) are deplorable, in fact there is little of Jain sculpture that is of any merit; the Ambika statue in the Jagannath Sabha at Elura is most attractive and far above the level of normal Jain sculpture, and the huge statue of Gomateshvara at Belgola has a certain grandeur because of its size, but the Jain sculptures as a whole can best be summarized by the words of Mr. Roger Fry who says on page 163 of 'Last Lectures'—'Perhaps it is as well to see for once from this Jain image how bad Indian religious art can be. The Jains I believe cultivate nudity, but it would appear that they get very little good by taking off their clothes as far as any appreciation of the plastic possibilities of the figure are concerned'.

One feels that more might have been made about certain other archaeological features, Barygaza only receives passing mention once, and nothing is said about Gujerat as the most important source of agate and carnelian during the period of the Roman Empire. Mention might also have been made of the Cambay bead trade and more detailed reference to Warmington's 'Commerce between the Roman Empire and India' and Arkell's Cambay and the Bead Trade, *Antiquity*, Sept., 1936, would have produced some interesting facts concerning the economics and daily life of the region, which have been rather neglected.

The Epigraphy and its dependent chapters, Administration and Society, are very well handled and indicate an immense amount of painstaking study. The appendices also should be of the greatest possible value in lightening and enlightening the labours of future students.

A few words may in conclusion be said about the book itself as such. The printing and general layout is excellent. The author has arranged his material most clearly, and the printer has not failed him in any way, would that one could say the same of the plates. Whoever conceived the idea of printing them in sepia instead of black and white has little knowledge of the prime factor of archaeological illustration, which is clarity. In most places the plates are so obscure that it is quite impossible to get a clear idea of the sculptural details, even when these are shown sufficiently large. One can only sympathize with the feelings of the author when he first saw the reproductions. Insult is, I feel, added to injury when the frontispiece, which in a way should set the standard for the whole book, is inserted upside down. The plans of temple architecture are of great value, but again the author is let down by the section of the Vav, or step-well at Vayad being printed upside down on Pl. III, a most puzzling thing even for one who, like the reviewer, is familiar with step-wells.

The author is to be congratulated on his distribution maps, which are invaluable for getting a clear picture of the material

which is being discussed, more topographical detail might, one feels, have been included without in any way obscuring the clarity of the information which the maps mean to convey. The Purna River moreover which is mentioned a number of times in the text is not to be found in any of the maps.

Speculation, one is glad to see, forms no part of Mr. Sankalia's exposition. He deals, very rightly, with facts and the reasonable interpretation to put on them. Such signs and wonders as the Prabhas Patan plate on which Mr. Pran Nath deciphered an inscription referring to Nebucadnezzar are mercifully absent. In fact, Mr. Sankalia is to be congratulated on a sound and scholarly piece of work, which we would like to see emulated to produce a series of similar regional archaeologies.

D. H. GORDON.

Studies in Burushaski Dialectology.

By SIDDHESHWAR VARMA.

(Communicated by Dr. S. K. Chatterji.)

In his stimulating article on 'A Burushaski Text from Hunza' (BSOS, Vol. IV, Part III, pp. 505-31), Lt.-Col. D. L. R. Lorimer observes that the question whether the dialects spoken in Hunza and Nagar can be justly called separate dialects is one 'that requires further investigation' (p. 509).

This 'further investigation' was undertaken by the present writer. The results of his investigations, detailed in this paper, are as follows :—

- (1) The dialects of Hunza and Nagar are not separate, but closely allied.
- (2) The differences between them, however, are not 'superficial', but are historically important.
- (3) Phonologically and grammatically, the Nagari dialect preserves forms which are the relics of an older dialect, but in vocabulary, this dialect shows close contact with Shina, the vocabulary of Hunza showing fewer traces of Indo-European borrowings.
- (4) In order to reconstruct a comparatively primitive *gemein-Burushaski*, we therefore require the phonological and grammatical forms of Nagari, and the vocabulary of Hunza.

We shall now describe the distinctive features of Nagari and Hunza in Phonetics, Grammar and Vocabulary.

The following abbreviations may be noted :—Hu. = Hunza, N. = Nagari, Sh. = Shina, n. = neuter gender, aa. = active-animate gender.

I. PHONETICS.

The symbols of the *International Phonetic Association* have been used throughout the treatise. Of these symbols, the following may be particularly noted :—

ɛ sounds like e in English 'bed', but is closer.

ɛ sounds somewhat like French ɛ, but not so close.

The high-falling tone as in i 'he himself' and the low-rising tone as in ji 'his son' are marked as usual.

t and d are retroflex consonants, and are separate phonemes (cf. my article on *Burushaski Texts* in 'Indian Linguistics', Vol. I, parts V-VI, p. 11).

The phoneme g, a velar voiced fricative, has a large number of subordinate members, which vary according to position and with different speakers. Of these subordinate members, the following two may be mentioned:—

A uvular g, but more or less fricative (narrow transcription ɢ) is often heard in the beginning of a word, as in Hu. ɢjon (broad transcription gjon) 'melon', N. ɢjaun.

Much more striking is a r-like sound, transcribed here as ɹ, pronounced much like the American r = ɹ, but often more like j. The interchange of g with r-like sounds has been noted by Jespersen (*Lehrbuch der Phonetik*, 4th Edition, pp. 49-50).

Generally speaking, g can never end a word. The sound at the end must be ɹ. Cf.

bʌɹ	'millet'.
dʌɹ	'fattened'.
lʌɹ	'cucumber'.

ɹ can never begin a word. The sound in the beginning must be g or ɢ, which varies with individual speakers. Both the sounds g and ɹ are distinctly heard in the following:—

dmɛːgəɹas	'to itch'.
garuɹo	'the bird called "Moa" in English'.
ɕɦɹɟuɹumɛːtas	'to dilute or soften'.
ɹlʰtagɹɹes	'to plaster a house with mud'.
gəɹu	'lame' but cf. gəɹu 'partridge'.

Another striking feature of this ɹ is that it is much less voiced than g; sometimes it is heard like a devoiced g₀.

g' is an ejective recursive; it is accompanied with glottal closure, emission of breath with vibration (giving one the impression of an affricate or an 'incipient' fricative), and often low tone of the succeeding vowel. Cf.

g'iʌko	'Kashmir'.
g'ɹʌlt	'ladle'.
g'ies	'to put in, insert, enter'.

(1) Contractions in Hunza.

The phonetic system of Hunza indicates it to be pre-eminently a dialect of contractions, and shows that Nagari has

preserved the relics of older forms. Cf. the following forms of the verb *etəs* 'to do' in the Present Indefinite tense :—

	<i>N.</i>	<i>Hu.</i>
'I do'	je 'eɕaba	je 'eɕaba
'thou dost'	um 'eɕaba	uŋ e'ca
'he does'	mɛ 'eɕubəi	'mɛ eɕ'ɬai
'we do'	mi 'eɕaban	mi 'eɕaban
'you do'	ma 'eɕuban	ma e'can
'they do'	u 'eɕuban	u e'can

Cf. also Past Continuous :—

	<i>N.</i>	<i>Hu.</i>
'I had been doing'	ja 'eɕabajəm	ja 'eɕabajəm
'thou hadst been doing'	'umɛ 'eɕubam	'uŋɛ e'cam
'he had been doing'	'mɛ 'eɕubam	'mɛ e'cam
'we had been doing'	mi 'eɕabam	mi 'eɕabam
'you had been doing'	ma 'eɕubam	ma e'cam
'they had been doing'	u 'eɕubam	u e'cam

This syncopation in Hunza gives a diversity of meaning with diversity of stress-accent. Cf.

	<i>Hu.</i>	<i>N.</i>
'I shall do'	'eɕəm	'eɕəm
'he had been doing'	e'cam	'eɕubam
'I brought'	'dɪɕəm	'dɪɕəm
'he had brought'	dr'eɕam	'dɪɕubam
'I did'	'eɕəm	'eɕəm
'he had done'	e'tam	'eɕubam
'I cooked'	dɛɕɛrəm	dɛɕɛhɪrəm
'he had cooked'	dɛɕɛr'am	dɛɕɛhɪrubam

There is a similar syncopation in the Neuter Pres. Indef. tense :—

	<i>N.</i>	<i>Hu.</i>
'it comes'	'juɕɪrɪ'la	'juɕɪla

Compare the following examples of syncopation :—

	<i>N.</i>	<i>Hu.</i>
gauhar'a	'a cradle'	gaɟura
'ulum ha	'inner apartment'	'ula
dusù	'bring'	sù
kɪŋkiki	'name of a bird of prey'	kiki

N.		Hu.
çhîçhîlêtas	'to entirely screen from view'	'çhîçhîlêtas
niçç	'having seen'	niçm
nu'hulja	'having mounted'	nuylja
'çhigr	'a she-goat'	çhigr
òlțik	'both of them'	òltik
crîlto	'the third day after the day- after-tomorrow'	cîlto
mrjysm'daro	'our wives'	mijsm'daro
e'manișç	'I may be'	emāșç
gu'maniș	'thou mayest be'	gu'māș
dêlșç	'I may beat'	dêlș
dêlș	'thou mayest beat'	dêlș
brum (aa)	'they were'	bim

Of particular interest are the Hunza contractions in *Negation*, which will be discussed under Grammar. In N. the uniform prefix for Negation is *au-*, in Hu. this *au-* has undergone many complicated changes. Cf.

N.		Hu.
'aud`ae'lam	'I did not hear'	e'tajelam
'aujççam	'I did not see'	'eiççam
'aujçfaba	'I do not see'	'eiçfaba
'audokòjel	'do not listen'	e'tukkujel
'auju	'do not give'	çu
'auși	'do not eat'	'eși
'auni	'do not go'	ojni
àujo'goibam	'would not give'	ej.guibam
àuwαqhəlji	'does not pain'	'ajαqulji

Vowels.

Parallel to this tendency to contractions, Hunza vowels show monophthongs where Nagari has diphthongs. Cf.

N.		Hu.
teiler	'thither'	tejler
'teilum	'from there'	tejlum
tarqeì	'a wave'	tarəqeɟ
gruskus	'widow'	g'e.skus
aujer	'my husband'	ojjer
'aulji	'my dream'	ojji

<i>N.</i>		<i>Hu.</i>
'aulus	'my (woman's) brother'	ojlus
'aumug	'tears' (from eyes)	ojmug
'aumus	'tongue'	ojmus
'auri	'nail' (of finger)	ojri
aus	'my wife'	ojs
'autis	'my foot'	ojtis
'aufo	'guest'	ojfo
daujn	'scarf'	dojn
gaujn	'melon'	gojn
thaujn	'fresh coriander'	thojn
gaujjes	'to pick up'	gojjes
jauj	'give to me'	joj

Some of the examples of this *Hu.* monophthongization in Negation have been already given. Cf.

<i>N.</i>		<i>Hu.</i>
ausən	'do not speak'	ojən
'auŋɕabɕ	'I do not eat'	ojŋɕabɕ

Absence of nasality in some of the Hunza words is another distinctive feature of the dialect. Whether it is a case of denasalization in *Hu.*, it is difficult to say. Cf.

<i>N.</i>		<i>Hu.</i>
hɛʃ	'a sigh'	hiʃ
mãjʃ	'massage'	majʃ
phũʃo	'hollow'	phuʃ

A number of words in *N.* has a final -u where *Hu.* has O. Cf.

<i>N.</i>		<i>Hu.</i>
'aɕu	'my brother'	'aɕo
'hɪpultu	'day after tomorrow'	'hɪpulto
'hunzu	'Hunza'	'hunzo
khùltu	'to-day'	khùlto
mujtu	'now'	mujto
'ʃukru	'Friday'	'ʃukro
-ulu	'in'	-ulo
'dɪɕu	'bring'	'dɪɕo
'ɕsu	'tell'	'ɕso

This tendency to final -u in N. finds a parallel in Shina. Cf.

Sh.	matũ	'brain'	N. Hu.	'mato
	ɖulu	'string'		
	danu	'bow for arrows'		

In many instances, especially in unstressed position, N. has the vowel ə where Hu. shows u. Even this variation may be a historical weakening in the case of Hu. u. Cf.

N.		Hu.
dəgoi	'noon'	duguì
dərò	'work'	durò
mo'nott	'a child insured against a fall by animal sacrifice'	} mənutt
gas'ki	'freshly kneaded dough'	
'lotɛ'tas	'to frown'	'lutɛ'tas
ʃən	'blind'	ʃun
		(In N. ʃun means 'vine')

The following vowel-correspondences, not yet confirmed by a sufficient number of examples to show any tendencies in the dialects, may be of value for future research:—

N.		Hu.
jɛɿ	'flour-mill'	jaɿ
'zɛilɛka	'to walk well'	zaɿlɛka
gu'ɕharəs		gu'ɕharəs
		'to strut'
ma'ɟut	'mosque'	ma'ɟit
gu'rɛs	'dung'	gu'ras
(r'qhətt) 'tɕaɕɛ'tas	'to smack the lips' (at a pleasant taste)	'tɕaɕɛ'tas
dojnəs	'to catch'	dujnəs
'gari	'eyeball'	gɛɟri
əɟɛ	'beard'	əɟi
bə'urum	'how much'	b'ɛrum
ɕa'qarɿfo	'pus from the eyes'	ɕɿqɾɿt

Consonants.

For a medial aspirated plosive in N., Hu. has generally a non-aspirated plosive, and in the light of the above-mentioned facts, it may be probably a case of deaspiration, and therefore a later stage, in the case of Hunza plosives. Cf.

	<i>N.</i>		<i>Hu.</i>
	'althar	'twenty'	'altar
	'baçhin	'leg'	'baçin
	'əphaṭ	'side'	'əpaṭ
	k h ə 'k h Δ c i	'to stutter'	g ə 'k Δ c i
	mənās		mənās
	jaṭṭhəl	'deer'	jattəl
	'lotṭhur	'ball'	'lotṭur
	məph'ər	'old person'	məp'ər
	'dēcənās	'to require'	'dēcənās
	dēcəhīrəs	'to cook'	dēcəhīrəs
	dēcīəs	'to press, to be sullen'	dēcīəs
	'dēcqhulənās	'to knead'	'dēcqulənās
	d'ε.mathəlas	'to yawn'	d'ε.matəlas
	'dēcəhīgīnās	'to hang'	'dēcəhīgīnās
	dīkəṭās	'to be entangled'	dīkəṭās
	'dīnəhīrās	'to spread' (as a carpet)	'dīnəhīrās
	'dīphīrəs	'to be uprooted'	'dīphīrəs
	'dīthəlas	'to wake'	dītəlas
	du'kukkūṭās	'to become lean'	du'kukkūṭās
	'əltələnās	'to turn the side of bread' (in baking)	'əltələnās
	ə'pphīlənās	'to flatter'	ə'ppīlənās
	'ēcīəs	'to press'	'ēcīəs
	əstəjās	'to extinguish'	'əstəjās
	ʼε.thīrās	'to show'	ʼε.ltrās
	ijlīkhīnās	'to beseech'	ijlīkīnās
(gapc)	khukhōrəs	'to plane, prepare' (as an axle of wheel)	kukhōrəs
	ʼε.guəhārəs	'to make one go'	ʼε.gu'əārəs
	əs'ε.phənās	'to irritate'	əs'ε.pənās
	ʼε.əhūmi	'sent'	ʼε.əumi
	ʼε.īkhīnās	'to teach'	ʼε.īkīnās
(Negation)	'auma'khārənī	'do not delay'	e'makəṛənī
(conj. part.)	'nīchi	'having given'	'nīcm
(conj. part.)	nu'kūəhər	'having gone'	nu'kūəṛ

In the beginning of words, however, Hunza seems to have a greater tendency for aspirated consonants in loan-words. Cf.

<i>Hu.</i>		<i>N.</i>
'phɛɪda	'created'	'pɛɪda
'phulis	'policeman'	'pulis
khòt	'coat'	kòt

The reverse phenomenon may be noticed in the following words. It is not known whether these words are loans. Cf.

<i>Hu.</i>		<i>N.</i>
qɑ'tɛɲɛ	'sword'	qhɑtɛɲɛ
tɑ'ɾɪŋ	'vessel to churn milk'	thɑ'ɾɪŋ
ɛakojmənʼas	'lean against or upon'	ɛhakojmənʼas

Perhaps the above differences are only local—a matter for future investigation.

Immediately after the *negative* prefix, the voiced consonant in *Hu.* is invariably devocalized, in *N.* it remains intact. Cf.

<i>N.</i>		<i>Hu.</i>
ɑuɟù	'do not come'	ɑɟù
'ɑubɛl	'do not wear'	ɑ'pɛl
'ɑudimi	'he did not come'	ətimi
'ɑudukòma	'thou didst not come'	ə'tukkuma
'ɑudukògəs	'do not laugh'	ə'tuɟugəs
'ɑugaribi	'does not ring'	ɑ'qaribi
'ɑugasɪʃən	'they may not laugh'	ɑ'qasɪʃən

The above variations in negation are historically important taking us to the apparently earlier forms in *N.*

There occurs in *N.* a curious divergence from *Hu.* It consists in the absence of an intervocalic *ŋ*, which *Hunza* has. But in the case of *N.*, it may or may not be a reverse case of syncope. It may indicate the greater aversion of *Hu.* to pure nasalization. Cf.

<i>N.</i>		<i>Hu.</i>
jɛʼɪmʊɛ (sg. jɛʼɪ)	'flour-mills'	jaʼɪŋʊɛ (sg. jaɪŋ)
hɪɑɪ	'doors'	hɪŋɑɪ
khɪɑɪ	'sides of the face'	khɪŋɑɪn
ruʼɑŋɛ	'pasture-lands'	ruʼŋɑŋɛ
guʃɪɑŋɛ	'women'	guʃɪŋɑŋɛ
tɪɑjo	'eggs'	tɪŋɑɾo

The following variations among the final nasals may be noted:—

N.		Hu.
um	'thou'	un or uŋ
ɖum	'a little'	ɖuŋ
but phin	'foam'	phim

In the following words an initial g in N. corresponds to k in Hu., while a medial g corresponds to q:—

N.		Hu.
garùJo	'the bird called "Moa" in English'	karùJo
gu'tul	'a large wooden basket plastered with mud'	ku'tul
but ga'tɛŋɕ ¹	'sword'	qa'tɛŋɕ
or qha'tɛŋɕ		
'dɛɕɛɪqmas	'to hang'	'dɛɕɛɪqmas
s'a-ichògoriŋ	'twilight'	s'a-r'chaqariŋ
'ɛcoqun	'younger'	'ɛcuqun
'Augasɪsən ²	'they may not laugh'	Δ'qasɪsən
'Augaribi	'does not ring'	Δ'qaribi

In the following examples, a final ɕ in N. corresponds to a s in H., while a medial ɕ corresponds to t:—

N.		Hu.
'garkaɕ	'lizard'	'garkas
bəlaɕ	'bird'	bəlas
but al'taɕ	'two' (aa.)	'alta
'dɛɕəlas	'to awaken'	'dɛstəlas
gɪjsə	'leavened bread'	gɪjsta
dɛɕəlas	'to support'	'dɛstəlas

The following variations cannot, for the present, establish any general result. They may be mere local variations. But the collection of the material may be of ultimate bearing on dialectical geography.

¹ This word has many pronunciations. It may be a loan-word.

² Cf. above, p. 140.

N.		Hu.
'gurgus	'breeze'	'gurkus
ki'tap	'book'	gi'tap
qha'qhas	'paper'	ga'kas
kəg'as	'cotton'	gu'pas

We have N. l = Hu. r in

N.		Hu.
ʃal	'a pit'	sar
ɖaŋ ləʃhas	'female goblin'	ɖaŋ rəʃhas
br'лаго	'colt'	br'rago
but tur biʃʌjes	'to break into a house'	tul biʃʌjes

In the following two examples l is lost before a plosive in N. :—

N.		Hu.
ʔε.thiras	'to show'	ʔε.ltiras
dəʃʌba	'I strike'	dəʃʌba

N. ʃ corresponds to Hu. s in the following :—

N.		Hu.
ʔʃkɪl	'face'	ʔaskɪl
məʃ	'flood'	məs
bəʃən	'what'	ʔbɛʃɪkrən 'of what kind'

N. m corresponds to Hu. b in the following :—

N.		Hu.
m'an ɛ'tas	'to kiss'	b'an ɛ'tas
maʃkeij	'name of a grass fatal to cattle'	baskuj
'mnɪs	'ball of dough'	'bonɪs
'nməʃ	'on reaching'	'nɪbəʃ
m = p in miʃq'ɛ.təs	'to make a "puj puy" sound with the lips'	piʃq'ɛ.təs

Most doubtful is the value of the following consonantal alternations, which I have noticed either in isolated instances or in conflicting forms :—

N.		Hu.
b'arjako	'red' pl.	b'areuko
ɲki	'a nit'	ɲki

N.		Hu.
p'kan	'latchets of the rough shoe called tA`uə'	ər'kan
mut	'fist'	muç
'dapa	'bundle'	'japa
jad'jare'tas	'to worry'	jar'jare'tas
d'ε.səɬas	'to vilify'	d'ε.səɬas
cu'kaŋ	'lavatory'	ju'kaŋ
'papeɬas	'to seethe or boil'	bapeɬas 'to be invisible'
phaltòç	'strip of cloth to wrap round the legs in winter'	'phati (perhaps a loan-word from Indo-Aryan)
thərək	'dirt'	thər
brù	'rice'	bras
Sh. brřũ		
də'tagar	'fever'	tə'tagar
dɪ'a	'is'	bɪ'a

II. GRAMMAR.

Nominal declension.

While conjugation in Burushaski Grammar is very complicated, nominal declension is very simple. Cases are generally formed by the addition of post-positions.

The only cases which are declined are the genitive and the agent cases, both of which end in ε. A sentence like

batʃ'a wəzɪr `ε.rmi

'The king sent the Wazir' reminds one of the simplicity of English Grammar.¹

Nominal declension does not present any striking variations between the two dialects. In plural formation the differences noted are only phonetic. Cf.

N.		Hu.
Sg. gus, pl. guʃɪanə ²	'women'	guʃɪɳanə
Sg. aujs, pl. mrujsm'daro ³ (Hu. ojs)	'our wives'	mɪʃɪn'daro
Sg. ij, pl. r'jua	'sons'	ju

¹ Cf. my article on Burushaski Texts in *Indian Linguistics*, Vol. I, part 3, p. 20.

² Cf. p. 140.

³ Cf. p. 140.

Pronouns.

In the forms of the pronouns there is considerable phonetic diversity. Cf.

<i>N.</i>		<i>Hu.</i>
um		un, uŋ
'khutɛ, n.	'this' (near)	'gutɛ, n.
'khukɛ, n. pl.	'these' (near)	'gukɛ, n. pl.
'khuse, aa.	'this' (near)	'guse, n.
'khugɛ, aa. pl.	'these' (near)	'gugɛ, aa. pl.
'ɛtɛ, n.	'that' or 'this' (distant)	'rɛtɛ, n.
'ɛkɛ, n. pl.	'those' or 'these' (distant)	'rɛkɛ, n. pl.
'ɛsɛ, aa.	'that' or 'this' (distant)	'rɛsɛ, aa.
'ɛsɛ, aa. pl.	'those' or 'these' (distant)	'rɛsɛ, aa.

Verb.

In the verb, the verb substantive (with its forms as auxiliary), negation, and the conjunctive participle present notable variations.

In the verb substantive diversity exists in the forms of the n. sg. and aa. pl. Cf.

<i>N.</i>		<i>Hu.</i>
drɪ'a	'is'	brɪ'a
drɪ'lum	'was'	brɪ'lum
bi'o, aa. pl.	'are'	brɪ'en } aa. pl.
		or bis }
brum, aa. pl.	'were'	brɪm
umaimio, aa. pl.	'they will be'	umaimɪ'en } or umaimɪ'e }

The combination of the verb substantive as auxiliary with other verbs (so as to form the various tenses) leads to contractions in Hunza, which have been already described above (p. 135). Cf.

<i>N.</i>		<i>Hu.</i>
'ɛcuba	'thou dost'	ɛ'ca
'ɛtubam	'he had done'	ɛ'tam
'ɛcubam	'he had been doing'	ɛ'cam

Negation.

The Phonetic peculiarities of negation in Hunza have been already given above (pp. 139, 140). The variety of initials in

Hunza negation, closely related as they are with pronominal prefixes, offers an interesting field for investigation into the original and intermediate forms of these prefixes. The following table shows the various forms of initials in negation:—

	N.	Hu.
Object as 1st pers. sg.	Δuə—	Δjə— < * Δ + u + ə u dropped, j as glide
„ „ „ „ pl.	'Δumi—	'Δmi— < * Δ + u + mi
„ „ 2nd „ sg.	'Δugu—	'Δku— < * Δ + u + gu
„ „ „ „ pl.	'Δumə—	'Δmu— < * Δ + u + mu
„ „ 3rd „ sg.	Δu—	ɛj— < * Δ + u + i
„ „ „ „ pl.	Δu—	oj— < * Δ + u + u (the u of the original Δu has been dropped in Hu.)

The following conjugation of *dələs* 'to beat' in the negative past tense will give an idea of the difference between the dialects:—

	N.	Hu.
'he does not beat me'	'mɛ jɛ 'Δuədɛjɯbɛi	'mɛ jɛ 'Δjədɪɭjɛi
' „ „ „ „ us'	'mɛ mi 'Δumi'dɛjɯbɛi	'mɛ mi 'Δmɪɪɭjɛi
' „ „ „ „ thee'	'mɛ um 'Δugu'dɛjɯbɛi	'mɛ uɣ 'Δkudɪɭjɛi
' „ „ „ „ you'	'mɛ ma 'Δumədɛjɯbɛi	'mɛ ma 'Δməɪɭjɛi
' „ „ „ „ him'	'mɛ khɪn 'Δudɛjɯbɛi	'mɛ khɪn ɛɪɪɭjɛi
' „ „ „ „ them'	'mɛ u 'Δudɔjɯbɛi	'mɛ u ojɪɭjɛi

Also cf.

N.	Hu.
'Δuʃɪɕɔba	'I do not eat it' ɛjʃɪɕɔba

For further examples, see above, p. 136, and for the devocalization of the consonant immediately after the negative prefix, see p. 140.

The potential compound verb with the 'can'-sense is formed by the auxiliary 'ulanəs 'to be able' in N., but *mən'as* 'to be' in Hu. Cf.

N.	Hu.
jɛ 'ɛtɪʃu'ɭɛbɔ	'I can do' jɛ 'ɛtɪʃamɛɭɛbɔ
jɛ 'ɛtɪʃaulɛɭɛbɔ	'I cannot do' jɛ 'ɛtɪʃɛj'amɛɭɛbɔ

In the optative mood, N. has *ɪ* before *ʃ*; in Hu. it is often lost. Cf.

N.		Hu.
ʒə'maniʂa	'I may become'	ə'māʂa
um gu'maniʂ	'thou mayest become'	gu'māʂ
ʒə dɛliʂa	'I may beat'	dɛlʂ

The conditional, which signifies unfulfilled condition, is formed in N. by the addition of -*əum* to the future; in Hu. by the addition of -*əɛ*. Cf.

N.	səbur	ʒa	in	dɛʒəm <i>əum</i> ,	in	dʒu <i>ʌ</i> sɪmi
	yesterday	I	him	would have beaten	he	escaped
Hu.	sɔʒti	ʒa	in	dɛʒəm <i>əɛ</i> ,	in	dʒu <i>ʌ</i> sɪmi
	(yesterday)					

'I would have beaten him yesterday, but he escaped.'

Similarly cf.

N.		Hu.
'ɛ <i>əum</i> ɛ <i>um</i>	'I would have done'	'ɛ <i>əɛ</i> ɛ <i>əɛ</i>
'ni <i>əum</i> ɛ <i>um</i>	'I would have gone'	'ni <i>əɛ</i> ɛ <i>əɛ</i>
' <i>ʌm</i> ə <i>əum</i> ɛ <i>um</i>	'I would have become'	' <i>ʌm</i> ə <i>əɛ</i> ɛ <i>əɛ</i>

The imperative mood has -*u* ending in N. where Hu. has -*o*. Cf.

N.		Hu.
'ɛsu	'tell'	'ɛso
'di <i>əu</i>	'bring'	'di <i>əo</i>

cf. p. 137.

This mood also shows loss of the prefix *də-* in Hu. Cf.

N.		Hu.
dus <i>u</i>	'bring'	s <i>u</i>
də'sokk	'get down'	sokk
də <i>chi</i>	'give me'	<i>ʌ</i> <i>chi</i>

The causative shows deaspiration in Hu., where N. has the aspirate. Cf.

N.		Hu.
'ɛ.gu'ɕh <i>arəs</i>	'to make one go'	'ɛ.ku'ɕ <i>arəs</i>

For further examples, *vide* p. 139.

Particularly notable are the variations in the *conjunctive participle* in these dialects:

The Hu. conj. part. has a -*n* ending, N. is without it. Cf.

		<i>N. conj. part.</i>	<i>Hu. conj. part.</i>
	dəgajəs	'to be hidden'	nu'taga nu'tagən
	d'a.gəsəs	'to laugh'	d'a.gəs d'a.gəsın
	'dɛsɛjas	'to hinder'	'dɛsa dɛsən
	dijləs	'to be wet'	dijl dijlm
N.	dojnəs }	'to catch'	dojn dujnın
Hu.	dujnəs }		
	du'asəs (pl.)	'to come out'	du'asfa du'asfm
	du'sujəs	'to bring'	dusù du'sun
	ɛsəs	'to tell'	'nɛsu 'nɛsun
	ɛtəs	'to do'	'nɛti nɛtən
	'ɛ.ləs	'to prick'	n'ɛ.li n'ɛ.lm
	'ɛ.stəgɛjas	'to conceal'	n'ɛ.staga n'ɛ.stagən
	ijləs	'to plunge'	nıl nılm
	jɛjəs	'to cling to'	'nija nijən
	jɛjəs	'to meet'	'niɛ nɛm
	jɛjəs	'to give'	njù njùn
	jɛj : ɛs }	'to be dry'	njù njùn
or	jɛj : ɛs }		
	jɛjɛjas	'to breed'	njùsa njùsən
	jùəs	'to come'	dì dìn
	gənəs	'to carry'	'nuka nu'kan
N.	gaujjəs }	'to pick up'	nukaù nukònım
Hu.	gojjəs }		
	gr'ɛjəs	'to enter in large number'	nr'kija nr'kien
	gr'ɛjəs	'to weave'	nr'kɪsa nr'kɪsən
	g'i : əs	'to put in'	nr'ki nr'kın
	nies	'to go'	nì nìn
	sɛjəs	'to eat'	nu'fɛ nu'fɛn

(2) The deaspiration of the consonant in Hunza after the conj. part. prefix has been already illustrated in 'nrcm, 'having given', nu'kuəɾ 'having gone' on p. 139. Cf.

		<i>N.</i>	<i>Hu.</i>
ɛhujəs	'to take away'	'nrɛhu	'nrɛun
'dɛchiəs	'to press'	'dɛchi	'dɛɛm
'ɛchiəs	'to press'	'nɛchi	'nɛɛm
gu'chejəs	'to sleep'	nu'kucha	nu'kucən
gu'ɛhərəs	'to go'	nu'kuəɾ	nu'kuəɾ
r'chiəs	'to give'	'nrchi	'nrɛm

		N.	Hu.
r'khaciəs	'to shut in'	'nikhaci	'nikaciŋ
r'qhaŋəs	'to break'	nɪqhər	nɪqər
kha'raŋas	'to delay'	'nikhəraŋ	'nikəraŋ

(3) This -n does not occur as conj. part. ending under the following conditions:—

(a) When the root already ends in -n, cf.

		N.	Hu.
guj'suginas	'to consult'	nu'kuʃiŋ	nu'kuʃkiŋ
gyrminas	'to write'	nɪ'kirmin	nɪ'kirmin
r'ɕharkənas	'to cudgel'	'nɪharkəŋ	'nɪɕarkəŋ
mənas	'to become'	'nimə	niməŋ
sənas	'to say'	'nuse	nu'səŋ

The last two forms are irregular in N., but the corresponding Hu. forms are quite regular.

An exception to this heading is dojnəs (N.), Hu. dujnəs, which in Hunza has the conj. part. dujnim.

(b) When the verb has the prefix ɪ or di. Cf.

		N.	Hu.
r'qhələs	'to ache'	'nɪqhul	'nɪqul
r'phaltəs	'to be injured'	nɪ'phalt	'nɪpalt
di'khras	'to decrease'	'dɪkhr	'dɪkr

(4) The following unusual forms can be explained by Vowel Harmony:—

(a) N. nɪ'mm 'having drunk'

(b) Hu. nujɔl sg. 'having put on (a coat)'.

(a) In N. ɕhl nɪ'mm 'having drunk water' we had expected nu'mm, because it is a general rule in both the dialects that the conjunctive participle of a neuter verb is formed by prefixing nu- to the root, whether the object of the verb is sg. or pl., cf.

N.		Hu.
nu'ʃɛ	, 'having eaten'	nu'ʃəŋ
'nuka	'having carried'	nu'kan

So we had expected nu'mm from the neuter verb mɪn'as 'to drink' and thus the Hunza form nu'mm might seem to be regular. But phonetically the Nagari form nɪ'mm is more regular, for neuter roots with i or ɪ take the prefix nɪ in both the dialects. Cf. the conj. part. of

		N.	Hu.
gjrmmas	'to write'	nr'krm̄m	nr'krm̄m
g'i:əs	'to put in'	ni'ki	nr'km

(b) The explanation of *nujjöl* as being due to vowel harmony has been already given in the present writer's article on *Burushaski Texts* in 'Indian Linguistics', Vol. I, part 3, pages 24, 25.

The following forms of the conj. part. in Hunza are irregular:—

		N.	Hu.
du'guəs	'to fasten or tighten' (as with a key)	'nidugu sg. 'nudugu pl.	} 'dugun
diəəs	'to bring'	'diəu	
thəjəs	'to be extinguished'	nu'tha	nu'tha
thiəs	'to pour'	nu'thi	nu'thm

In the last example we had expected a deaspiration of *th*, as in *niəm* 'having given'.

Adjective formation in both the dialects does not show any variation, the normal adjectival ending being *-um*, as in *matum* 'black'; *bujr̄um*, 'white'. Cf., however, the alternation *t:l* in the structure of the following ordinal number:—

Hu.		N.
th'a.ət̄um	'hundredth'	th'əulum

The N. form is here regular, as in both the dialects *-ulum* is the normal ordinal ending, though the initial *u* in Hu. is generally dropped, cf.

N.		Hu.
'waltjulum	'fourth'	'waltilum
mr'f̄mdjulum	'fifth'	mr'f̄mdilum

Hu. *th'a.ət̄um* is therefore irregular.

Some *Adverbs* in N. end in *-i*, where we have *o* or *u* in Hu., e.g.

N.		Hu.
'kuli	'even'	'kulu
'amuli	'where'	'amulo
'amulim	'whence'	'amlum

III. VOCABULARY.

A glance through the standard list of words and sentences given in the Appendix may lead the reader to suppose that the

so-called 'dialects' are only phases of one and the same dialect, there being few differences among the words given except a little difference in pronunciation here and there.

But as I pointed out in a printed circular to the Linguistic Society of India (Sept. 6, 1930), the key-words and phrases in the L.S.I. are not of much value for inter-dialectical research. Those key-words are of a generic type and may be nearly identical among several dialects with a common culture.

Shibboleths.

In my investigation of the Hunza and the Nagari dialects I examined a number of informants, some of them quite old and with a keen observation of linguistic variations. I collected the following shibboleths from them, shibboleths which they said had often come to their notice and had been talked about as differentiating the Hunza from the Nagari dialect :—

<i>Hu.</i>		<i>N.</i>
ga'fɪl	'firewood'	'cuni
charb'ajo	'upper hips' (human)	ca'rakiʃo
'gugundɪl	'dove'	kùti
darògu	'stick'	kun'a
ɛtɪʃ'amajəba	'I can do'	'ɛtɪsulajəba
ju'ar	'war'	birg'a
		Sh. birgā

Dialects, in which differences like the above occur, cannot, without extraordinary reasons, be supposed to be identical. As regards the directions in which differences in vocabulary occur, it will be noted that most of the words relating to the human body, the human relations and the numerals—the hackneyed test of philologists—are almost identical,—indicating a common origin and a common culture. But striking differences occur in words relating to the Forest and agricultural life, utensils and instruments, and natural and physical phenomena.

A striking feature of the Vocabulary is the poverty of adjectives and abstract terms. For such a concept as 'fruitful', the dialects have

buʃ ujaibi	'it carries a great deal'
buʃ u'janəs təm dɪl'a	'the tree is carrying a great deal'

There is no word for 'height'. For 'what is its height?' the only available idiom is 'how high is it?'

'khuse ba'urum th'anum bi

But the dialects are very rich in 'Enumerative idiom' (cf. my article on *Burushaski Texts* in 'Indian Linguistics',

Vol. I, part 3, p. 28), in which minute details of actions have separate words as in Mundā,—Hunza, in this respect, being richer than Nagari. The following directions of variations in vocabulary, then, may be indicated—:

(1) *Words relating to forest and agricultural life.*

<i>Hu.</i>		<i>N.</i>
ədap	'harvest'	ən Sh. ɔn 'grain'
bə'gundo	'yeast'	'iškur
bə'tajsm	'apricot-pickles'	ʃut
bɪsqa'galgu	'centipede'	gaɪǰjɪç or kal'tas Sh. gälāç
bə'gondo	'maize-bread'	təl'toppo Sh. tət'təri
buc	'male-goat for propagation'	'chula
buajltarç	'cowherd'	hu'jeltarç { for both 'cowherd' and 'shepherd'. In Hu. it means 'shepherd' only
buajsuruɲ	'cow-house' (for winter)	} tark
buajhər'aɪ	'cowhouse' (for summer)	
dɪr	'boundary'	dɪr Sh. dɪr
cari	'cricket' (insect)	ʃu'ʃui
'chare-baç	'a small inaccessible dense forest on mountain'	'chare-'tapi
çhɪɫsɪ'qal	'the large wasp'	məç'həri
çm'ɪli	'a tiny crust of stone or wood'	ɲɪpini
'galɲ	'precipice with constructed steps'	kapr'nɪʃo
'gɪkm	'small bundle of wood'	'təpi
gun-'holənas	'the bat' (night's)	} tɔ'tapəl Sh. tatāpan s'öçi-huk Sh. s'öçi 'female'
çr'brto	'the bat' (day's)	
gus-huk	'bitch'	
gu'ti	'cottage'	'dukuri
ga'ʃɪl	'firewood'	'cuni

Hu.

gɪ'ɖɪŋmamù
'gugundil

gu'ruk
gus
hal

hal'den
h'as

'holenas

'holenas

'huco cukotes ust'at 'shoemaker' lit. expert
in sewing shoe

r'phulgo
'khišo

pəɖajsɪŋ

phɪ'lal
phɪ'ran

'phɪrans'phaskɪɖaj
'phuteʃu'tukumuɖ
or 'pharemuɖ

rr'mɪzɪl

sar'muɖ
su'putt

'ʃakɛ'tas
togu'li

'raw milk'
'dove'

'stone'
'clod of earth'
'fox'

'goat'
'walnut-kernel'

'moth'

'butterfly'

'hump of cattle'

'mosquito'

'apricot-pickles'
cf. bəɖajsɪm above

'wild mint'
'spider'

'spider's web'
'mushroom' (umbrella-
form) lit. 'ghost's buds
or caps'

'civet'

'large skin-bag'
'horse's dung'

'to massage a horse'

'male sheep' (young)
'male sheep' (grown-up)

N.

'ɪsɪmo mamù
kùɖi

Sh. koɖi kunùl
ɖa'jok
phɪn'ɖɪl
lo'ɪ

Sh. lō'i

ɟeit
khəkhəi
Sh. khakāi

'green walnut'

phɪ'ran (In Hu. it
means 'spider')

br'tan

'ɟautɪr
Sh. ʃhotó

maɟto

'phɪɖo

Sh. phíɖu

ʃut

gur'muphr'lal

'tələbuɖo

Sh. təlbūru

'tələbuɖophɪ'lam

'ʃutɖɛ

mr'əhr

Sh. mɪtshɪr

meɟɪs

bagɛ'ɪ

{ this is the com-
mon word for
animal dung in
general in both
the dialects

'qəqəɖɛ.təs

} kərɛ.lo

(2) *Words relating to utensils and instruments.*

<i>Hu.</i>		<i>N.</i>
'asumbalk	'a wooden contrivance which directs the speed of a flour-mill'	cì
'aški	'pillow'	o'nokis Sh. <u>onokis</u> 'cushion for chair'
etaf'gir	'tongs'	'eappi
'chukus	'bow-string'	gun
'dagū	'glue'	daɯjk Sh. <u>dōk</u>
dam'bur	'large wooden basket plastered with mud'	gu'tul
'hanrk	'basket for bread'	thaljō
hars'cūm	'the yoke of a plough'	as'cūm
hr'km	'ear-ring'	'magun
g'ralt	'ladle'	ḍōri
ke'dakus	'stocks for punishment'	sarikus
'khaci	'pail'	'paṇḍa
kha'was	'leather-bag fitted with strap'	borokoɟ
jujn	'rug'	'khama
pul'tunɨs	'bellows'	phə'ʃən
pur'elo	'flute'	ga'bi
tu'tur	'whip or scourge'	ɟr'kan
'thaɬakus	'a constantly moving wooden contrivance in a flour-mill'	ka'deki

(3) *Words relating to natural and physical phenomena.*

<i>Hu.</i>		<i>N.</i>
chil heralt	'thin cloud'	burgɟl 'cloud, mist' Sh. <u>būrgāl</u>
'əgur	'thick cloud'	
buɟrupɛ	'white cloud' (there being no special word for a 'cloud')	
'dambu	'bubble'	'hars 'ilcm (lit. 'stream's eye')
gamɨɛɟ.əlɨ	'sleet'	'isqal
hiən	'hail'	garɛɟl

<i>Hu.</i>		<i>N.</i>
'nironqjɔ	'rainbow'	bijɔɔn Sh. <u>bizón</u>
tis'qan	'earthquake'	bū'jal Sh. <u>būjā'l</u>
titrīs	'spark'	jurtuji Sh. <u>curtūi</u>

(4) *Words relating to time.*

<i>Hu.</i>		<i>N.</i>
'jimale	'tomorrow'	jum'den
sajti	'yesterday'	səbur
'sasatumo	'evening's'	'jamo
pojn	'age'	đen 'year'

(5) *Words relating to the human body.*

<i>Hu.</i>		<i>N.</i>
əwaʃ am'en	'jaw'	'khalduɔ am'en
charb'ajo	'upper hips'	ə'rakɪʃo
kərnej	'ear-hole'	al'tumalsphus or gə'mor
səlet	'moustache'	phūjī
mar'mukən	'handful'	hikmuçən
'pharət	'a scar'	gɔɔl
hiq'ɛ.təs	'to hiccough'	ku'duk mən'as
ʃan'tər	'squint'	'təro Sh. <u>tēre achiye</u>
r'fɪpm	'child's penis'	'euro
'sawa'dito	'mad'	'phutkɪʃ
ə'charlɪʃ mən'as	'to be hoarse'	əchar'qharətəs
'hupe'tas	'to drink with a noise'	ʃujke'tas
('foʃo) 'phɪk'ɛ.təs	'to open a small wound'	{ ɛar'ɛ.təs (for both meanings)
(ʃoqɔ) ɛar'ɛ.təs	'to open a large wound'	
'ɛare'tas	'to pass fluid stools'	
		'tɪtɪre'tas

(6) *Words relating to various actions.*

<i>Hu.</i>		<i>N.</i>
Δqeɔ'are janəs	'to carry a child on one's side'	'hapa janəs

Hu.		N.
bijskinas	'to beg'	du'marəs (this word occurs in both the dialects)
'hani 'braqqotəs	'to break apricot-kernel'	('hani)u'qharəs
'çhlpupurotəs	'to rub or press with hands', as dough	mu'murmuc otəs
dəl'dinas	'to unhusk'	də'dametas
dəl dije	'arise'	'hartmane
'dignilas	'to cut and lay in heaps'	No parallel word available
(heralt) dī'arçəs	'to rain'	jūəs
də'qhokkurotəs	'to be tangled'	gaṭwaləs <u>galatōiki</u>
dò.jenas	'to prick'	'e.ləs
(ha) dojrəs	'to fall' (said of a horse)	gar mən'as
dojrəs	'to fall' (said of snow)	şaq mən'as
'dāŋe'tas	'to bake'	'driəs
hik'e.təs	'to fill'	şek'e.təs
r'chanəs	'to count' (object neuter)	} u'chanəs (for both)
u'chanəs	'to count' (object non- neuter)	
r'kharəje gum'gam mən'as	'to soliloquize in mutter- ing voice'	grit'gut mən'as
r'sarkəs	'to leave'	'phatetas
mò.mi'rəs	'to copulate'	motes
'gatənəs	'to read'	sa'baq şenəs
tikò.jelas	'to brush a horse'	'qhaşotəs
		Sh. <u>khaş thoiki</u>
'qharçetas	'to clap with hands'	'trapetas
thraqmən'as	'to sprout'	dişki'as
sar'barçetas	'to castrate a bull or buffalo'	'aḡta etas

Under the above head, *semantic variations* may be noticed in relation to the following words—:

Hu.	N.
bi'fejəs	'to fire a gun' (tu'maq)
	'to spread' (a carpet, etc.)
	In Hu. 'waşjəs is used in this sense.

*Hu.**V.*

'ṣhapənas 'to mend'

'to sew'

In Hu. 'ṣuketās is used in this sense.

daldieṣ 'arise'

'to keep standing the whole day long'

ga'tamurəs 'to press kneaded dough finally'

'to press woven cloth'

In N. only dēqqhulənas is generally used for all the processes.

r'mutəs 'to cut bread into slices'

'to mince grass or dry bread'

For mincing grass Hu. has 'zarəzəraq etās.

'jəgujas 'to pick up with hands'

'to search for', as a person.

In Hu. it cannot be used with reference to a non-neuter object; bəjreṇas 'to search' is used instead.

(7) *Adjectives and abstract terms.**Hu.**N.*

altókum

'pair'

'hikum

bə'barum

'disagreeable in smell'

gas'parum

chuṭən

'a little' (for water)

thiṣən

phrūən

'some' (as walnuts)

kamən

ḍaṇ

'difficult to break'

caməraṣto

gatgu'm

'enemy'

'duḥman

hik-'he.ḥi

'once'

hik-ḍamən

'huma

'shallow'

ḥal

khuṭ

'broad'

'ḥo.qum

mr'nas

'story'

nr'mas

'phoppuṣ

'bastard'

'amulo

qh'as

'fragile'

mu'thaso

ram'ratt

'level'

gu'tum

rai

'desire, will'

raqq

Enumerative idiom.

The above vocabularies, as for cloud, cowherd, cowhouse, male sheep, etc., will show that the 'Munḍā' tendency for 'enumerative idiom' is greater in Hu. than in N., for in the former there are separate words for the detailed aspects of an object or action, thus to 'knead' in the first stage is *dəqqhulənas*, but the final press is *ga'tamuras*. In N. *dəqqhulənas* is the only word used throughout. For further examples see the above vocabularies. The closer relation of Nagari with Shinā will be also clear from the above vocabularies.

Conclusion.

The above pages give us the following results—:

(1) The dialects of Hunza and of Nagar are appreciably distinct dialects, though they are not separate.

(2) Hunza is pre-eminently a dialect of contractions, and manifests a later stage in the development of Burushaski.

(3) But while phonologically and grammatically Hunza shows a later stage of Burushaski, it preserves better the original vocabulary of the language, the vocabulary of Nagari being contaminated with Shinā.

(4) Burushaski is still an unclassified language, its classification being a subject for future investigation, but the above dialectical study has facilitated the approach to this classification. For Burushaski being now a mixed language, unless a comparatively primitive *Gemein-Burushaski* is reconstructed, its relation to other languages cannot be definitely established. The direction to this reconstruction of *Gemein-Burushaski* is afforded by the above study, which shows us that for this purpose we have to look for the phonological and grammatical forms of Nagari and the vocabulary of Hunza.

(5) The above facts have also a bearing on general Linguistics.

(a) In our methods of Dialectology, we have to bear in mind that for the reconstruction of a *Gemein-Sprache*, we may have to look for its Phonology and Grammar in one of its dialects and vocabulary in another. A language or a dialect may be old in grammar, but may look very modern from the standpoint of vocabulary. A comparison of Pañjābi with Bengali will illustrate this. Pañjābi is an older language grammatically, but its vocabulary has been greatly Persianized. The reconstruction of an older *Gemein-Pañjābi* will require a reference to allied languages with an older vocabulary.

(b) The above study also throws light on the methods of inter-dialectical research. It shows in what directions the vocabulary of two dialects, which on the surface seem to be identical, can vastly differ. Dialects with a common culture

need not show any striking difference in vocabulary relating to the human body, blood-relations and the numerals. Inter-dialectical research in vocabulary requires the exploration of other fields, as forest and agricultural life, natural and physical phenomena, and the various 'secondary' activities of man.



APPENDIX.

Standard words and sentences according to the scheme of the *Linguistic Survey of India*.

<i>English.</i>	<i>Hunza.</i>	<i>Nagarī.</i>	<i>L.S.I. equivalent.</i>
1. One.	han, hm, hik; han'hagur one horse; hm hir, one man; hik den, one year.	han, hm, hik	Han, hm, hik; han haghur, one horse; hin hir, one man; hik din, one year.
2. Two.	'Alta, al'tan, 'alto; 'alta ha'gurifo, (or 'hagur) two horses; al'tan'hri, two men; 'alto 'deniŋ, two years.	al'tae, al'tan, 'alto al'tae ha'gurifo, two horses.	altā, altan, alto; alkā haghur, two horses; alkān hirī, two men; alto dining, two years.
3. Three.	'usko, is'ken, 'iski; 'usko ha'gurifo (or 'hagur), three horses; is'ken'hri, three men; 'iski 'deniŋ or den, three years.	'usko, is'ken, iski	Uskō, iskin, iski; uskō haghur, three horses; iskin hirī, three men; iski dining, three years.
4. Four.	'walto, 'walti; 'walto ha'gurifo (or 'hagur), four horses; 'walto 'hri, four men; 'walti 'deniŋ or den, four years.	'walto, 'walti	Waltō, waltī; walto haghur, four horses; walto hirī, four men; waltī dining, four years.

APPENDIX—continued.

<i>English.</i>	<i>Hanza.</i>	<i>Nagari.</i>	<i>L.S.I. equivalent.</i>
5. Five.	'ṣhundo, 'ṣhṁdi; 'ṣhundo hə'guriṣo (or 'hagur), <i>five horses</i> ; 'ṣhundo 'hri <i>five men</i> ; 'ṣhṁdi 'ḍeṇṇ or ḍen, <i>five years</i> .	'ṣhundo, 'ṣhṁdi	Sundō, sindī; sundō haḡhur, <i>five horses</i> ; sundō hiri, <i>five men</i> ; sundi dining, <i>five years</i> .
6. Six.	mī'ṣṁdo, mī'ṣṁdi; mī'ṣṁdo hə'guriṣo, <i>six horses</i> ; mī'ṣṁdo 'hri, <i>six men</i> ; mī'ṣṁdi 'ḍeṇṇ, <i>six years</i> .	mī'ṣṁdo, mī'ṣṁdi	Mashindo, mashindī; mashindo haḡhur, <i>six horses</i> ; mashindo hiri, <i>six men</i> ; mashindī dining, <i>six years</i> .
7. Seven.	'thalo, thale; 'thalo hə'guriṣo, <i>seven horses</i> ; 'thalo 'hri, <i>seven men</i> ; 'thale 'ḍeṇṇ, <i>seven years</i> .	'thalo, 'thale	'Thalo, thalē; thalo haḡhur, <i>seven horses</i> ; thalo hiri, <i>seven men</i> ; thalē dining <i>seven years</i> .
8. Eight.	al'tambo, al'tambi; al'tambo hə'guriṣo, <i>eight horses</i> ; al'tambo 'hri, <i>eight men</i> ; al'tambi 'ḍeṇṇ, <i>eight years</i> .	al'tambo, al'tambi	Altambō, altambi; altambō hagur, <i>eight horses</i> ; al- tambō hiri, <i>eight men</i> ; al- tambi dining <i>eight years</i> .

9. Nine.	'hupco, 'hunṭi; 'hupco hə'guriṣo, <i>nine horses</i> ; 'hupco 'həri, <i>nine men</i> ; 'hunṭi 'ḍenṭi, <i>nine years</i> . tòrumo, tòrmī; tòrumo hə'guriṣo, <i>ten horses</i> ; tòrumo 'həri, <i>ten men</i> ; tòrmī 'ḍenṭi, <i>ten years</i> . 'Altar	'hupco, 'hunṭi tòrumo, tòrmī 'Altar	Hunchō, hunṭi; hunchō haghur, <i>nine horses</i> ; hun- chō hiri, <i>nine men</i> ; hunṭi dining, <i>nine years</i> . Tòrmō, tòrmī; tòrmō haghur, <i>ten horses</i> ; tòrmō hiri, <i>ten</i> <i>men</i> ; tòrmī dining <i>ten</i> <i>years</i> . altar; altar haghur, <i>twenty</i> <i>horses</i> ; altar hiri, <i>twenty</i> <i>men</i> ; altar dining, <i>twenty</i> <i>years</i> .
10. Ten.			
11. Twenty.			
12. Fifty.	'Alto Altar tòrumo th'a je, ja ja ja, ja bi, <i>mine is</i> .	'Alto Altar tòrumo th'a je, ja ja ja, ja bi	Alto altar tòrmō Thāh Jē, jā Jā Jā; <i>whose horse is this?</i> Jā bi, <i>mine is</i> .
13. Hundred.			
14. I.			
15. Of me.			
16. Mine.			
17. We.	mi	mi	Mi
18. Of us.	mi	mi	Mi
19. Our.	mi, mi ha'guriṣo, <i>our horses</i> . uṭ, un, 'uṭe, 'une	mi, mi ha'guriṣo un, 'une	Mi; mi haghur, <i>our horses</i> . Ung, Ungē
20. Thou.			

APPENDIX—continued.

<i>English.</i>	<i>Hanza.</i>	<i>Nagarī.</i>	<i>L.S.I. equivalent.</i>
21. Of thee.	'uŋe; 'uŋe 'haɣur, <i>thy horse.</i>	'ume; ; 'ume 'haɣur	Ungē; ungē haɣur, <i>thy horse.</i>
22. Thine.	'uŋe, 'une	'ume	Ungē
23. You.	m'a	m'a	Mah
24. Of you.	m'a	m'a	Mah
25. Your.	m'a; m'a 'haɣur, <i>your horse.</i>	m'a; m'a 'haɣur	Mah; mah haɣur, <i>your horse.</i>
26. He.	in, 'me	in, 'me	In, inē
27. Of him.	'me	'me	Inē
28. His.	'me; 'me 'haɣur, <i>his horse.</i>	'me; 'me 'haɣur	Inē; inē haɣur, <i>his horse.</i>
29. They.	'ue	'ue	Ūē
30. Of them.	'ue	'ue	Ūē
31. Their.	'ue; 'ue ha'guriŋo, <i>their horses.</i>	'ue; 'ue ha'guriŋo	Ūē; ūē haɣur, <i>their horses.</i>
32. Hand.	irīn	irīn	Irīn
33. Foot.	juŋtis	juŋtis	Yūŋtis
34. Nose.	r'mupuŋ	r'mupuŋ	Imūpuŋ
35. Eye.	'ilem	'ilem	Ilchin
36. Mouth.	r'qhatt	r'qhatt	Ikhat
37. Tooth.	m'e	m'e	Imih

38. Ear.	'rtumel	'rtumel	İltūmal
39. Hair.	gu'jaŋ	gu'jaŋ	Choyang
40. Head.	'jatis	'jatis	Yatis
41. Tongue.	jumus	jumus	Yūmus
42. Belly.	jul	jul	Yūl
43. Back.	r'valdas	r'valdas	Ivāldas
44. Iron.	chu'mar	chu'mar	Chhomar
45. Gold.	'genis	'genis	Ghinish
46. Silver.	bujri	bujri	Buri
47. Father.	jù	jù	Yū
48. Mother.	'mi	'mi	Imi
49. Brother.	'əo	'əo	Ēcho
50. Sister.	jas	jas	Yas
51. Man.	hr	hr	Hir
52. Woman.	gus	gus	Gus
53. Wife.	jus	jus	Yūs
54. Child.	hles	hles	Hilas
55. Son.	j	j	I
56. Daughter.	èi	èi	Ēi
57. Slave.	əon	əon(?)	'Tsun
58. Cultivator.	ə'dapkwim	ə'dapkwim	Burushin
59. Shepherd.	hu'jeltarə	hu'jeltarə	Hoyaltars
60. God.	qhu'da	qhu'da	Khudā

APPENDIX—continued.

English.	Hunza.	Nagari.	L.S.I. equivalent.
61. Devil.	ʃɛt'an	ʃɛt'an	Shaitān
62. Sun.	s'a	s'a	Sah
63. Moon.	helanə	helanə	Halang
64. Star.	əsiɟ	əsiɟ	Asī
65. Fire.	phù	phù	Phū
66. Water.	əhl	əhl	Sil
67. House.	h'a	h'a	Hā
68. Horse.	'hagur	'hagur	Haghur
69. Cow.	buja	buja	Buvā
70. Dog.	huk	huk	Huk
71. Cat.	buɟ	buɟ	Bush
72. Cock.	(hir) qər'qamuɟ	(hir) qər'qamuɟ	Hir karkamush
73. Duck.	ph'arɪʃ	ph'arɪʃ	Pharish
74. Ass.	ʃa'kun	ʃa'kun	Jakun
75. Camel.	ut	ut	utū
76. Bird.	belas	belas	Belas
77. Go.	nɪ; to go, nɪs	nɪ, nɪs	Ni; to go, nias
78. Eat.	ʃɪ; to eat, ʃɪs	ʃɪ, ʃɪs	Shi; to eat, shias
79. Sit.	hu'rut; to sit, 'hurutes	hu'rut, 'hurutes	Harut; to sit, harutas
80. Come.	pɪ; to come, j.ɪs	pɪ, j.ɪs	Ju; to come, jūas

81. Beat.	dèli; to beat, dèlies	dèli, dèlies	Deli; to beat, dellas
82. Stand.	daldije; to stand, daldiejjes:	hartman'è, hartmen'as	Diyh; to stand, Diyhas
83. Die.	gujr; to die, jres:	gujr, jres	Guir; to die, iras
84. Give.	juj; to give, jujjes:	juj, jujjes	Yū; to give, jūas
85. Run.	g'are; to run, g'arees:	g'are, g'arees	Gārs; to run, gārtās
86. Up.	'jate	'jate	Yate
87. Near.	esjr	esjr	Asr
88. Down.	j'are	j'are	Yarē
89. Far.	methan	methan	Mathan
90. Before.	j'ar, 'ingi	j'ar, 'ingi	Angē
91. Behind.	'ilji	'ilji	Ilji
92. Who.	'amin	'amin	Āmin
93. What.	bəsen	bəsen	Bisan
94. Why.	'bese	'bese	Bisē
95. And.	ke	ke	kih
96. But.	'ama	'ama	Ammā
97. If.	-ke (added to verb)	Δqghna	Akhnā
98. Yes.	'awa	'awa	Awā
99. No.	b'è	b'è	Bih
100. Alas.	'hago	'hago	Afsōs
101. A father.	hm jù	hm jù	Hin yū
102. Of a father.	hm jùè	hm jùè	Hin yūè
103. To a father.	hm jùer	hm jùer	Hin yuar

APPENDIX—continued.

	<i>English.</i>	<i>Hunza.</i>	<i>Nagari.</i>	<i>L.S.I. equivalent.</i>
104.	From a father.	hm jùeum	hm jùeum	Hin yū tsum
105.	Two fathers.	al'tan jùearo	al'tan jùearo	Altan yūsarō
106.	Fathers.	jùearo	jùearo	Yūsarō
107.	Of fathers.	jùearuē	jùearuē	Yūsarōē
108.	To fathers.	jùearuēr	jùearuēr	Yūsarō ar
109.	From fathers.	jùearuēum	jùearuēum	Yūsarō tsum
110.	A daughter.	hm èi	hm èi	Hin ēi
111.	Of a daughter.	hm èiē	hm èiē	Hin ēiē
112.	To a daughter.	hm èimur	hm èimur	Hin ēimur
113.	From a daughter.	hm èimōeum	hm èimōeum	Hin ēimūeum
114.	Two daughters.	al'tan jùgu'fane	al'tan 'igu'fane	Altan yūgishans
115.	Daughters.	jùgu'fane	'igu'fane	Yūgishans
116.	Of daughters.	jùgu'faneē	'igu'faneē	Yūgishanse
117.	To daughters.	jùgu'faneēr	'igu'faneēr	Yūgishansar
118.	From daughters.	jùgu'faneēum	'igu'faneēum	Yūgishansmutsum
119.	A good man.	hm fua sis	hm fua sis	Hin daltas hir
120.	Of a good man.	hm fua 'sise	hm fua 'sise	Hin daltas hirē
121.	To a good man.	hm fua siser	hm fua siser	Hin daltas hirar
122.	From a good man.	hm fua 'siseum	hm fua 'siseum	Hin daltas hirtsum
123.	Two good men.	al'tan fua sis	al'tan fua sis	Altan daltashkō hiri

124. Good men.	ʃua sis	ʃua sis	Daltashkō hirī
125. Of good men.	ʃua 'sise	ʃua 'sise	Daltashkō hirīē
126. To good men.	ʃua sisər	ʃua sisər	Daltashkō hirī
127. From good men.	ʃua 'sisəum	ʃua 'sisəum	Daltashkō hiritsum
128. A good woman.	ʃua gus	ʃua gus	Hin daltas gus
129. A bad boy.	gu'neqışhr'leş	gu'neqışhr'leş	Hin ghumikish hilas
130. Good women.	ʃua guʃiʔaŋə	ʃua guʃiʔaŋə	Daltas gushingans
131. A bad girl.	gu'neqış dā'sm	gu'neqışdā'sm	Hin ghumikish dasin
132. Good.	ʃua	ʃua	Daltas, shōā
133. Better.	(m'əsum) ʃua	(m'əsum-) ʃua	But shōā
134. Best.	(oʃəsum) ʃua	(oʃəsum-) ʃua	Oyōn tsum shōā
135. High.	th'anum	th'anum	Th'anum
136. Higher.	(sə'sum-) th'anum	(sə'sum-) th'anum	But th'anum
137. Highest.	(oʃəsum-) th'anum	(oʃəsum-) th'anum	Oyōntsum th'anum
138. A horse.	han 'hagur	han 'hagur	Han haghur
139. A mare.	han b'adum	han b'adum	Han bāyūm
140. Horses.	ha'gurifo	ha'gurifo	Haghurishō
141. Mares.	b'adumifo	b'adumifo	Bāyūmishō
142. A bull.	han 'əhmdar	han 'əhmdar	Han har
143. A cow.	han buja	han buja	Han buvā
144. Bulls.	əhm'darifo	əhm'darifo	Haro
145. Cows.	buja	buja	Buvā
146. A dog.	han huk	han huk	Han huk

APPENDIX—continued.

<i>English.</i>	<i>Hunza.</i>	<i>Nagari.</i>	<i>L.S.I. equivalent.</i>
147. A bitch.	gus-huk	s'ōci-huk	Han gus-huk
148. Dogs.	hu'kai	hu'kai	Hukai
149. Bitches.	gu'fj'ane hu'kai	s'ōci-hu'kai	Gushingans hukai
150. A he-goat.	han hal'den	han jēt	Han haldin
151. A she-goat.	han shijr	han 'shigur	Han sir
152. Goats.	hal'den	'jēttaro	Hoyas
153. A male deer.	jattəl	jattəl	Han giri haldin
154. A female deer.	'jattələshijr	jattəle'shigur	Han giri sir
155. Deer.	jattəl	jattəl	Giri
156. I am.	jə ba	jə ba	jə bah
157. Thou art.	uj ba	um ba	ung bah
158. He is.	m bai	m bai	mē bai
159. We are.	mi b'an	mi b'an	Mi bān
160. You are.	ma b'an	ma b'an	Mah bān
161. They are.	u'e b'an	u'e b'an	Ūē bān
162. I was.	jə b'ajəm	jə b'ajəm	jē baiyam
163. Thou wast.	uj bam	um bam	ung bam
164. He was.	m } bam or 'me	m or 'me bam	mē bam

165. We were.	mi bam	mi bam	Mi bam
166. You were.	ma bam	ma bam	Mah bam
167. They were.	u'e bam	u'e bam	Ūē bam
168. Be.	uj 'mane	um 'mane	Manih
169. To be.	men'as	men'as	Manās
170. Being.	men'as	men'as	Manumafē
171. Having been.	'numan	'numan	Bam
172. I may be.	je em'asqa	je e'manisa	Jē amanshā
173. I shall be.	je amejam	je amejam	Je baiyam akhir
174. I should be.	je amenas sua br'la	je amenas sua dr'la	Je amānas shōā bilā
175. Beat.	dēli	dēli	Deli
176. To beat.	dēlies or dēles	dēlies or dēles	Delias
177. Beating.	dēlies or dēles	dēlies or dēles	Nidilin
178. Having beaten.	'nidrim	'nidri	Nidilin
179. I beat.	ja dōlyaba	ja dōlyaba	Jē deljam
180. Thou beatest.	'uje dōlja	'ume dōjuba	ungē deljuā
181. He beats.	'me dōljei	'me dōjubai	mē deljai
182. We beat.	mi dōlyaban	mi dōlyaban	Mi deljān
183. You beat.	ma dōljan	ma dōjuban	Mah deljān
184. They beat.	u'e dōljan	u'e dōjuban	Ūē deljān
185. I beat (Past Tense).	ja dēlem	ja dēlem	ja deliyam
186. Thou beatest.	'uje dēluma	'ume dēluma	ungē delima
187. He beat.	'me dēlimi	'me dēlimi	mē delimi

APPENDIX—continued.

<i>English.</i>	<i>Hunza.</i>	<i>Nagari.</i>	<i>L.S.I. equivalent.</i>
188. We beat.	mi dèlmən	mi dèlmən	Mi delman
189. You beat.	ma dèlmən	ma dèlmən	Mah delman
190. They beat.	u'e dèlmən	u'e dèlmən	Ū'e delman
191. I am beating.	ja dōɽɽba	ja dōɽɽba	Jē deljaba
192. I was beating.	ja dōɽɽbaɽjəm	ja dōɽɽbaɽjəm	Jē delja baiyam
193. I had beaten.	ja dōɽɽbaɽjəm	ja dōɽɽbaɽjəm	jē deliya baiyam
194. I may beat.	ja dēɽsa	ja dēɽsa	jē deljam
195. I shall beat.	ja dōɽjəm	ja dōɽjəm	jē deliasbah
196. Thou wilt beat.	'uɽe dōɽjuma	'ums dōɽjuma	ungē deljumā
197. He will beat.	'ɽne dōɽji	'me dōɽji	mē delji
198. We shall beat.	mi dōɽjən	mi dōɽjən	Mi deljan
199. You shall beat.	ma dōɽjumen	ma dōɽjumen	Mah deljuman
200. They will beat.	u'e dōɽjumen	mi dōɽjumen	Ū'e deljuman
201. I should beat.	ja dēɽies ma'ɽɽs	ja dēɽies ma'ɽɽs	jā deliasshōābilā
202. I am beaten.	jē e'dēɽes amənəm	jē e'dēɽes amənəm	Ādelam āmānam
203. I was beaten.	jē e'dēɽes amənēb'ajəm	jē e'dēɽes amənēb'ajəm	Ādelam āmānabaiyam
204. I shall be beaten.	jē e'dēɽes amējəm	jē e'dēɽes amējəm	Jē adeliasshōābilā
205. I go.	jē 'ɽɽeaba	jē 'ɽɽeaba	Jē nicham
206. Thou goest.	uɽ 'ɽɽea	um 'ɽɽeaba	ung nichomā
207. He goes.	m 'ɽɽai	m 'ɽɽeubai	m nichoai

208. We go. mi 'nreabān Mi nichan
 209. You go. mā 'nreubān Mah nichoman
 210. They go. u'e 'nreubān Ūē nichoman
 211. I went. je niem Jē niyam
 212. Thou wentest. um 'nima ung nībam
 213. He went. m 'nmi m nīmī
 214. We went. mi nimen Mi nīman
 215. You went. mā nimen Mah nīman
 216. They went. u'e nimen Ūē nīman
 217. Go. nī Nī
 218. Going. nīs Nin
 219. Gone. nim Nān
 220. What is your name? 'uṃe guik besen dī'a ungē guik bisan bilah
 221. How old is this } 'guse 'hagure b'ērum pojn } 'khusē 'hagure b'ērum jāṭ bī
 horse? } bī'a } dēn dī'a }
 222. How far it is from } khōlum g'āko b'ērum } Khōlum Kashmīrar b'ērum
 here to Kashmir? } methan bī'a } mathan bilah
 223. How many sons are } 'uṃe gue 'hale b'ērumen } ungē gū halē b'ērum yū bān
 there in your } 'joṭumue b'an } joṭumue b'an
 father's house? }
 224. I have walked a } je khūltō buḍ methan gan } Khūltō mathan gusaram
 long way to-day. } dēlabā }

APPENDIX—continued.

<i>English.</i>	<i>Hunza.</i>	<i>Nagari.</i>	<i>L.S.I. equivalent.</i>
225. The son of my uncle is married to his sister.	ja 'nancijə 'mɛ 'jasmuk'a } garə'tai }	mi 'nana iə 'mɛ 'jasmuk'a } garətubəi }	Jā nanāē i inē yasmokā garitai }
226. In the house is the saddle of the white horse.	buɽrum 'hagure tɽliŋ } h'ale br'əa }	buɽrum 'hagure 'tɽliŋ } h'ale br'əa }	Halē barūm haghurē tili- yang brisah }
227. Put the saddle upon his back.	gu'seote tɽliŋ 'e.dɽli }	khus'e.ote tɽliŋ 'e.dɽli }	Tiliyang isē ivāldas ēgfn }
228. I have beaten his son with many stripes.	ja m'ɛ i j 'gape tu'turane } ta'raɽa d'əlia ba }	ja m'ɛ i j 'gape pɽ'kanone } tak'n'eti d'əlia ba }	Jē inē i thorak deliyam }
229. He is grazing cattle on the top of the hill.	'mɛ 'chɽse i'thandasate } har buja u'jareai }	'mɛ 'chɽse i'thandate har } buja u'jareubəi }	isē laghindaris ohhisholi uyarchai }
230. He is sitting on a horse under that tree.	'mɛ 'tɛ tum'are 'hagu- } rate nuɽjan b'ai }	'mɛ 'tɛ tum'are 'hagu- } rate nu'hujan b'ai }	mē haghurat nūljā utē tum yūrharutai }
231. His brother is taller than his sister.	m'ɛ ɛəo m'ɛ jasmuɽum } th'anum b'ai }	m'ɛ 'əu m'ɛ 'jasmuɽum } th'anum bəi }	mē ēchō inē yas mutsum thānum bai }

232. The price of that is } isē gaš 'alta ru'pea ke } esē gaš 'altā ru'pea ke } isē gašh altā dabal kih
two rupees and a } tray bil'a } tarang bilah
half.
233. My father lives in } ja 'ala 'tse juḍ h'dle } mi 'aga ète juḍ h'dle } Jā āghā itē jut halē huru-
that small house. } 'huru'ai } hu'ru'ubei } shai
234. Give this rupee to } gušē ru'pea mer ju } 'khuse ru'pai mer ju } Gusē rūpiyah inar yū
him.
235. Take those rupees } gušē ru'pea m'ēsum } khuse ru'pamue m'ēsum } Gusē rūpiyah in tsum yan
from him. } 'dugo } 'dugo }
236. Beat him well and } 'me juca 'ndilm 'ga[skulo } 'me juca 'ndili 'ga[skulo } Shōā nidilan gashk olo
bind him with } tr'aone r'phus } tr'andēti r'phus } tarāō nih iphus
237. Draw water from } gulku'lum ehil dñs } gulku'lum ehil dñs } Ghulkōlum sil diūs
the well.
238. Walk before me. } f'æum ejar gu'əhar } f'æum ejar gu'əhar } Jā yār gusar
239. Whose boy comes } 'ujs 'guəiatē mēne uijən } 'ume 'guəiatē mēniko } ung gusiāt mine hilasen-
behind you ? } ju'oi } uien ju'uboi } juchai
240. From whom did } 'ise mēnēum 'dumaruma } èse mēnēum 'dumaruma } isē min tsum dūmarūmā
you buy that ? }
241. From a shop-keeper } 'ite gr'ame saoda- } ète gr'amulum saoda- } itē girame dokāndārtgum
of the village. } 'garæum }

Seasonal Nomadism and Economics of the Chenchus of Hyderabad.

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INTRODUCTION.

Of all the aboriginal tribes of the Deccan the Chenchus are racially and culturally the most primitive, and though at present they form but a small group they may be considered as representative of those larger populations of hunters and collectors that roamed the jungles of the tableland when the first invaders of higher culture penetrated the country south of the Godavari. While other tribes lost their social and economic independence and were gradually absorbed within the cultural system of the new-comers, the Chenchus remained comparatively isolated until recent times. During the last few generations, however, improved communications have threatened this isolation, contacts with surrounding populations deepened, the exploitation of the forests brought outsiders into the heart of Chenchu country, and thus it is that to-day only a few hundred Chenchus still live their old tribal life. These 'Jungle Chenchus', as they may be conveniently called, as distinct from the Chenchus dwelling in or near the villages of Telugu cultivators or in the settlements created by the Forest Authorities of Madras, number at present 426 men, women and children. They inhabit the upper part of the Amrabad Plateau in the Mahbubnagar District of Hyderabad, an area of about 320 sq. miles on the northern bank of the Kistna River. This plateau is an extension of the Nallamalai Hills and rises to heights of 2,800 feet above sea-level. On the lower parts of the plateau and in the adjacent plains approximately 1,800 Chenchus live in symbiosis with various cultivating castes, while the main branch of the tribe, numbering 8,078 according to the Census of 1931, live in the Nallamalai Hills south of the Kistna River in the Madras Presidency. This article deals only with the Jungle Chenchus of Hyderabad, among whom I stayed from January to July, 1940.

The literature on the Chenchus is extremely scanty and consists mainly of the article in E. Thurston's 'Castes and Tribes of Southern India', Vol. II, pp. 26-45, and Gulam Ahmed Khan's report in the Census of India, 1931, Vol. XXIII, Part I, pp. 261-276. In the same volume (pp. 277-279) B. S. Guha has described the physical types found among a limited number of the Chenchus of the Amrabad Plateau.

SEASONAL NOMADISM.

The Chenchus still tell of a time when their ancestors owned no houses, but lived under trees and in rock-shelters. That this time does not lie further back than a few centuries is borne out by a passage in Ferishta's 'History of the Deccan', who describes them as 'living in caverns and under the shady branches of trees'.

To-day the Chenchus have learnt to build houses of bamboo and to thatch them with grass, but they have by no means abandoned their nomadic habits and it would be erroneous to suppose that all Chenchus dwell in solidly built houses and permanent settlements throughout the year. Their dependence on the natural products of the forest forces them to follow in the train of the seasons and at certain times of the year to leave the villages where they have their well-built houses for places with more water and increased possibilities for the gathering of edible plants. The Chenchu does not regard these migrations as a burdensome necessity however, but seems to be driven to them by a strong nomadic instinct, for even groups who find sufficient food and water in the vicinity of their permanent villages will leave their comfortable houses as the time of the annual migration approaches and erect temporary shelters in the jungle, perhaps as little as a mile away.

The houses in the permanent villages are built solidly with circular wattle walls and conical roofs thatched on bamboo rafters that rest on a forked centre pole. They are between 10 ft. and 15 ft. in diameter with one door about 3 ft. wide and 4 ft. high. These houses are generally rebuilt every two or three years, though much of the old material is incorporated in the new building even when the site of the village is shifted.

The dwellings in the temporary settlements are much less elaborate and can usually be constructed in an hour or two. The most solid are the low grass huts, which in shape fall between beehive and cone. A less complicated type of temporary dwelling is a rectangular shelter with posts to support the walls and flat roof of leafy branches. Still easier to construct is a rough triangular shed made of stout branches in leaf.

There can be no doubt that the primitive leaf-shelters, to-day used only in temporary settlements during the dry season, represent a survival of the earlier types of dwellings used by the Chenchus, who admit that they learnt the art of building proper houses from plains people.

Before they had acquired this art, which ties them to one village site for at least a part of the year, their movements must have been even more nomadic than they are now, and the lack of cohesion of the Chenchu village as a social unit probably dates from those times when they roamed the forest in small family groups.

The whole of the Chenchu area is divided into clearly defined tracts belonging to the various village communities. Within each tract is one permanent settlement, and it is by the name of this that the whole community is known. The permanent village is invariably inhabited during the rains and the greater part of the cold weather, but in January it is frequently deserted either by all or some of the individual families, which disperse and live in small temporary settlements during the next three or four months. Many of these settlements lie low down on the banks of the Kistna River, but others are hidden in the jungle in places where water and food are assured. Towards the end of March, when the corollae of the mohua tree (*Bassia latifolia*, Roxb.) provide ample food and the raw material for distilling liquor, the Chenchus seek out places where these trees are plentiful and move from the valleys up on to the plateau,—either back to their permanent village or to other temporary settlements on the hills.

The functioning of these migratory habits can be demonstrated best by a concrete example and as such the village of Irla Penta will serve. Irla Penta lies on a ridge at a height of about 1,800 feet only three and a half miles north of the Kistna River. At present the village community consists of eleven households, but none of these remain in Irla Penta after the end of the cold weather. The *peddamanshi* or headman, who owns cattle, moves down to the woods on the banks of the Kistna River, where he and one other family of his clan build temporary shelters. There they remain for two or three months, but at the time of the mohua season they go back to the hills, either spending a short time on a nearby ridge where each of them has a small hut or returning directly to Irla Penta. Three other families of Irla Penta settle six miles upstream on the open bank of the Kistna and, when I visited their settlement in March, a family of Boramacheruvu, a village some ten miles distant from Irla Penta, had joined this group. They had built no proper shelters, but lived on the rocks near the water, only wedging a few branches between the cracks to protect themselves against the afternoon sun; and if it rained the little colony sought refuge in a rock-shelter. Each family had its own hearth, but except for a few pots and collecting baskets they had brought no other household goods.

Another man of Irla Penta with his two wives and his five children settles every year on a tributary of the Kistna, where he has built a good house and has made an attempt to grow tobacco and Indian corn. Here he is only an hour's walk from the colony on the Kistna, but apparently he prefers the solitariness of his one-house settlement. At the time of the mohua flowers he brings his family up to the plateau and settles by the tank in Boramacheruvu. His brother's wife, a widow with three unmarried daughters, also leaves Irla Penta every

year for Boramacheruvu, her native village, where the tank provides enough water for her buffaloes.

The four remaining households of Irla Penta move every January to a site on a narrow rock ledge only a couple of furlongs from the Kistna, where they find sufficient fodder and water for their cattle. At the end of March they shift to a settlement on a nearby spur, where each family owns a proper house. They too return to Irla Penta at the beginning of the rains.

Although most groups now follow the same migratory routine year after year, their movements are fairly elastic and each family is free in its choice of a camping ground for the hot weather.

These seasonal migrations often entailing visits to other village-lands are only fully understandable when viewed against the background of the structure of Chenchu society and the customary law in regard to ownership of land.

The smallest, but most important, unit of Chenchu society is the family, which consists of husband, wife (or in rare cases two wives) and their unmarried children. Of all the social units only the family is characterized by division of labour and real economic co-operation, and so great is its self-sufficiency that some men live at least part of the year with their wives and children in single-house settlements. Owing to the absence of specialization in Chenchu economics the family relies normally on its own members for its supply of food and other necessities, although in times of stress the help of blood-relations is sought, and, as a rule, readily forthcoming.

Families dwelling alone are rare, however, and most Chenchus live in small communities of three to ten households, sharing a common settlement and common collecting grounds. These communities, which fluctuate throughout the year, swelling and shrinking from season to season, may be aptly termed 'local groups'. Their cohesion is based on common interests and more or less identical activities. In certain cases the members have only assembled for the purpose of exploiting one particular kind of fruit or other food-stuff which is to be found in that locality and at that time of year in great quantities, and will disperse as soon as the supply is exhausted.

In daily life complete equality seems to reign among the members of the local group, but close observation leads us to discern two definite classes: those permanent members born in the locality, who participate in the ownership of the surrounding tract of land, and those individuals whose inclusion is only temporary either as mates or as 'guests' of blood-relations already within the group. Between the two classes there are, however, no discriminating rights in the fruits of the soil and the spoils of the chase, for those settling in a village are *ipso facto* entitled to the produce of the land.

The unstability of the 'local group' is due to the fact that every Chenchu possesses the right to reside, collect and hunt not only in the tract of land owned by the village of his father, but also in that of his mother and, if he is married, in the land of his wife's group. Thus he is free to move from one tract to the other as the season seems to advise, and to join now a 'local group' composed mainly of his own kin, and then one of his wife's blood-relations. But although individuals join at will any 'local group' where they may have relations, for certain purposes they remain linked with their home village, i.e. the permanent settlement where they grew up. There they are co-heirs to the land, while a man in his wife's village is only a 'guest'.

There exists no permanent private ownership of land, although a man is considered to be in temporary possession of any plot on which he has planted Indian corn, millet or tobacco. The tracts that form the common property of a village community are, however, clearly defined and their boundaries jealously guarded against encroachments by outsiders not entitled to its fruits by descent or marriage.

It is possible that the exogamous patrilineal clans into which the whole tribe is divided were originally territorial units and in possession of separate tracts of the country. A certain regional distribution of the clans, whose nature and function cannot be discussed here, is still noticeable, but nowadays the right to any particular tract of land is not linked up with clan-membership. Even should the clans have once been local units, a man would still have had the right to roam freely on the land of his father's clan as well as those of his mother and his wife, and thus the scope for the annual migrations of the Chenchus must always have been fairly wide.¹

PRINCIPLES OF CHENCHU ECONOMICS.

The economic system of the Chenchus is essentially that of a tribe of hunters and food collectors. For the Chenchu depends for nine-tenths of his food-supply on that which nature provides and it is only a limited number of families, who by owning a few domestic animals are now in the process of emerging from this lowest and primaeval stage of human development. Cultivation is generally restricted to the planting of a small patch of tobacco and a few tomatoes and chillies in the immediate vicinity of the houses. There are, however, some enterprising men who plant a few handfuls of millet (*Andropogon Sorghum*) or Indian

¹ A full discussion of the Chenchus' social organization will be found in my book 'The Chenchus. Jungle Folk of the Deccan', which is in the Press.

corn (*Zea Mays*, Linn.) during the rains, but their number is small and the resultant crop too negligible to add appreciably to the food-supply of the family.

Any provision for the future is alien to Chenchu mentality. To wake in the morning with no food in the house does not disturb him in the least. He proceeds leisurely to the jungle to collect roots and fruits, satisfying his hunger as occasion offers, and returns to the village in the evening to share with his family all that he has brought home. There is no storing of eatables against an emergency, or indeed is any thought given to the morrow, for almost all food is instantly consumed. Under such conditions it is only the mutual assistance between families forming the local group that tides the individual over crises such as illness.

The Chenchu's horizon is bounded by the present and to speak of an economic 'system' when dealing with a tribe living so completely from hand to mouth is liable to create a false impression, for it is just the lack of 'system' that is so characteristic of Chenchu economics. In hunting and in the gathering of fruits, the fundamental basis of the old economy, this trait is most pronounced, while with the adoption of new enterprises a change of mental attitude necessarily occurs. Thus the preparing of mohua liquor calls for a certain foresight, since the flowers must be gathered and dried for several successive days before distilling can commence and the good prices some villages can obtain from selling dried flower to plains people has induced the Chenchu to curb his own instincts and to store the flowers in pits against the time of the highest offer. Similarly in the breeding of buffaloes and oxen provision must be made for mating. We may conclude therefore that since in certain spheres the Chenchu does exercise foresight, the lack of providence is a cultural and not a racial trait, or, in other words, that it is not owing to a mental disposition that the Chenchu so seldom plans for the future, but rather that his own old culture afforded little opportunity for planned economic activity. I am conscious that this may appear a vicious circle, for, it might be argued, is it not due to the Chenchu's peculiar mentality that he has not developed more systematic methods of satisfying the most fundamental of all human needs, the need for food? This problem, applicable to all primitive races on the cultural level of food collectors, cannot be discussed here, but it may be pointed out that once in close touch with higher developed economic systems the Chenchu does learn to exercise a moderate amount of foresight, although not unnaturally he prefers the care-free hand to mouth existence of his fathers.

Another aspect of the general lack of vision is the Chenchu's wasteful attitude towards the jungle in which he lives. He will lop off branches in order to pick the ripening fruit in comfort, or fell a tree on which a red squirrel or one of the large arboreal

lizards has taken refuge. If he sights a comb in some inaccessible place, he will, if no easier method presents itself, cut down the whole tree in order to take the honey. An important exception to this attitude is the treatment accorded to creepers with edible roots. The Chenchus say that if they find a climber with particularly prolific roots they replace the earth after removing the tubers, so that the plant should not die. Such care is, however, exceptional and is not exercised in the ordinary course of digging up roots.

The absence of concerted action is another important characteristic of Chenchu economics, and one which has surely played as large a part in barring the way to progress as the lack of planning. Although Chenchus set out in groups of three or four to collect roots or fruits, individuals working side by side do not co-operate; each fills a separate basket, and each carries his basket back to his own house to be consumed by his own family. Even in hunting, an activity which would seem to offer many opportunities for co-operation, the Chenchu does not resort to concerted action. Driving and beating are unknown and the Chenchu relies entirely on chance and his skill in woodcraft. No doubt this accounts for his limited success and has helped to relegate the chase to its present secondary rôle in the quest for food. Scarcity of ritual, which occupies such a prominent place in the economic activities of other primitive peoples, is perhaps due to this lack of co-operative effort. For among the more developed primitive societies the main function of ritual connected with hunting, fishing, the sowing and harvesting of crops and the building of canoes is the bond it creates between those partaking in the enterprise, a function which would seem entirely aimless in the absence of any co-ordinate effort.

The only division of labour in Chenchu society is that between the sexes, and even this is less marked than among many other primitive races. The collection of the majority of food-stuffs during the various seasons is effected by both men and women, there being no distinction in the method employed. Certain other activities, however, such as hunting, honey-taking and basket-making are exclusively male, while women prepare most of the food. Yet even household duties may fall to the lot of men, who occasionally undertake tasks which generally belong to the domain of women. The sexes are, as in most primitive societies, largely dependent on each other and the fate of the lone man or woman is not enviable, though perhaps widows seem to find a solitary life less uncomfortable than the single man.

Although a certain measure of barter and trade must have been maintained with the plains for some considerable time, it is significant that Chenchus never barter among themselves. Economically perhaps more than socially, the family is a self-contained unit and save in cases of illness or accident, when help

is readily forthcoming from all members of the local group, the Chenchu family is able to obtain all necessities of life through the efforts of its own members. Once more, exceptions are provided by activities of recent introduction, and a man owning cattle will borrow a bull to cover his cows or a mill-stone will be lent to one lucky enough to have acquired some grain. No payment is demanded for such services, which fall under the head of general helpfulness among villagers. Yet, however great this helpfulness may seem, we must realize that it is not economic co-operation in the full sense of the word; it is not based on a definite system of rights and obligations and is, so to say, accidental and not institutional.

This complete lack of the institutional factor in economic activities may perhaps baffle the student of human society, who is accustomed to think of primitive economics woven within a network of ritual, reciprocal social obligations and tribal lore, but if we review the social structure of the Chenchus it becomes evident that the economic independence of the individual family is correlated to its status as a self-contained social entity, free at any time to sever its connection with the village group. It is abortive to question whether the individualistic trend in Chenchu economics is responsible for the absence of a rigidly organized social unit larger than the family, or vice versa; the interdependence between economics and social organization is obvious.

FOOD COLLECTING.

The majority of the Chenchus living on the upper plateau subsist almost entirely on the fruits, plants and roots, which they are able to collect in the forests and the daily task of gathering these products eclipses all other occupations. It is the digging stick and the collecting basket on which the Chenchu relies for the bulk of his food-supply.

Edible fruits and plants vary with the seasons, and while there are times when it is comparatively easy for the Chenchu to collect ample food, there are others when he has to struggle hard to provide himself and his family with sufficient to eat, and many are the days he goes to sleep on an unsatisfied stomach.

During the cold and dry seasons the adult men and women leave the village with digging sticks over their shoulders and collecting baskets on their hips about three hours after sunrise. They go in twos, threes or even fours to those parts of the forest where they expect to find edible roots or fruits. Husband and wife, particularly in the first years of marriage, often go to the jungle together, but more often the sexes separate and there is a definite tendency to seek companions of the same age for the day's work. When fruits are in season Chenchus are certain to fill their baskets, but the digging of roots is more dependent on chance and in the dry season women frequently return after a

full day's work with little more than a handful of roots in the bottom of their baskets, which was all that remained after the satisfying of their immediate hunger in the jungle. Dusk nearly always finds the women in the village, but the men sometimes make two-day excursions to far-away collecting grounds, camping in the jungle for the night and only returning to the village the following evening. Even such expeditions do not yield an exceptional quantity of roots, for most of that which the men collect is roasted and eaten while they are away from home.

During the cold and the first part of the hot season the mainstay of Chenchu diet consists of the edible roots, or more precisely the tubers of various creepers; some thrive all the year round, while others can only be collected during the dry season.

The most important of these tubers is *nalla gadda*, which is of a white soapy texture, with a taste that slightly resembles potatoes. It comes into season at the end of the cold weather and lasts without interruption till the beginning of the rains and there are times when the Chenchu subsists almost entirely on *nalla gadda*. *Eravala gadda* and *nula gadda* are to be found at all times of the year, except during the rainy season when these tubers decay in the damp earth. *Chenchu gadda*, however, occurs throughout the year. It grows perpendicularly in the soil, two to three feet deep, and entails much hard labour to unearth; it is therefore the men who generally dig up this particular tuber. During the rains *Chenchu gadda* is collected in great quantities, but it is said to have most flavour during the hot season. *Donda gadda* is another tuber collected at all seasons, but it favours the lower valleys and is not very plentiful on the top of the plateau. The seed-pods of this creeper ripen during June, when the Chenchus collect the seeds and eat them raw. *Samakura gadda* is the tuber of a small plant not more than a foot high and is collected exclusively at the end of the rains when it develops in great quantities. The pods maturing in the autumn are boiled whole, but only the seeds they contain are eaten; these are said to be very satisfying. Ultimately there is *gita gadda*, a tuber only eaten in times of emergency, when no other food is available, for its consumption is followed by acute indigestion.

When digging for tubers the Chenchu sits on the ground, usually with one leg outstretched and the other crooked and drawn up, while the digging stick is operated with both hands. Men sometimes squat when digging for roots bringing their whole weight to bear at each thrust. Since more often than not the creepers grow in stony soil, many stones must be removed before the earth immediately surrounding the roots is reached. It is difficult to estimate the exact position of the tubers, but when the first hairy fibres appear, the hands are used to scratch

away the last covering earth in order not to damage the tubers with the iron point of the digging stick.

In the cold weather the ripening of various fruits breaks the monotony of a tuber diet, but the individual species last but a short while, and within a few days the Chenchu falls back on the filling, but not exactly tasty tubers. During January he collects the large brown velvety pods of *Bauhinia Vahliei*, W. & A., the most abundant climber on the plateau. Its green seeds are roasted or boiled and though they are slightly bitter, they have a not unpleasant flavour even to those unaccustomed to Chenchu fare. During the same month the pods of *Tamarindus indica*, Linn. are plucked when the pulp of the pod is still juicy. These pods are stringed in much the same manner as French beans, the outside skin is removed and the whole pod then dipped in ash to mitigate the acidity. Tamarind pods play a fairly important part in the diet until the middle of February.

The last weeks of February and the first of March are a poor time for fruit. In some localities the Chenchus pick the unripe berries of *Buchanania latifolia*, Roxb., cracking the double shells in order to reach the kernels (*chironjis*), which at this time of the year are the only edible portion. The Chenchus whom I found camping on the Kistna River had, at the time of my visit, nothing to eat but these small nuts. It was the middle of March and they complained that for days they had been unable to find any roots, although the yield of the valley had been good on their arrival two months previously.

In March the Chenchus collect the first tender green blossoms of a tree, locally known as *mirikai*, which they chop up and boil. They like to eat these mixed with curd, but this is only possible when there are buffaloes in the village. Soon the fruit of *Ficus infectoria*, Roxb. ripen and are eaten as an occasional relish while at the end of the same month the first of the red figs of *Ficus glomerata*, Roxb. come into season. The Chenchus of Boramacheruvu, where I stayed at that time, used to make a dash for the fig trees with the greying dawn, each anxious to be the first to arrive and to secure the most and best of the windfalls. They explained that they could not climb the trees, because the trunks were infested with red ants, and thus were forced to wait till the figs fell to the ground. During these days they sat in the village most of the morning, eating their fill of the over-ripe fruit and cutting the rest into pieces and drying it in the sun to preserve it till the evening.

Soon after the ripening of these figs the first corollae of *Bassia latifolia*, the mohua tree, drop to the ground and with this begins the mohua flower season, so eagerly awaited by all Chenchus. In the preceding weeks the tall grass under the trees has been fired and the fleshy corollae which litter the charred ground during the next two months are therefore easy to collect. Mohua flowers are collected in great quantities for

food as well as for the distilling of liquor. In most Chenchu villages the greater part of those brought home to the village is boiled and eaten at once, only a small portion being set aside each day by the individual families, to be dried on the rocks or on the open spaces in front of the houses and used for liquor. The Chenchus sometimes boil the leaves of *Erythroxylon monogynum*, Roxb. with the mohua flowers, whose slightly bitter taste probably counteracts the sickly sweetness of the mohua.

Used as food the fresh flower is boiled, but when intended for liquor the corollae are dried in the sun for several days. Mohua liquor is almost pure alcohol and very potent; it is often drunk while still warm, though before a wedding or other ceremony it is usual to make a couple of pots in advance.

The mohua flower season lasts through April and May. The same months see the ripening of the fruit of *Buchanania latifolia* and the Chenchus eat the pleasant sweet flavoured pulp as well as the kernels already mentioned above. Often the kernels are removed from the pulp and cracked one by one, but sometimes whole berries are squashed between stones and the resultant mash eaten raw. The fruit of *Buchanania angustifolia*, Roxb. is very similar, the berries being larger, and it too is consumed by the Chenchus whenever found, though it is less plentiful on the plateau. In gathering fruit of this kind the Chenchus usually climb the trees devouring all the ripe berries within reach; sticks are also used to beat the branches so that the fruit falls to the ground, where it is eagerly pounced on by children and old men squatting below. A more wasteful method, but one typical of Chenchu mentality, is the lopping of the fruit-bearing branches so that the berries may be collected in comfort.

It is also during May that the small red fruit of *Ficus bengalensis*, Linn. come into season, and thus the Chenchu enjoys an abundance of food at this time of the year. The result of this time of plenty on the appearance of the Chenchu is most striking and the limbs of men and women put on weight, while faces, which in the cold weather had worn a lean and hungry look, become plump and almost unrecognizable.

The season of mohua flowers and *chironjis* comes to an end, however, in the second half of May, and the Chenchu then reverts to his diet of tubers, several kinds of which are particularly plentiful and well flavoured in the time between the first showers of May and the breaking of the monsoon. Moreover, there are the young tender leaves of *Tamarindus indica*, which are boiled and eaten and the figs of *Ficus bengalensis*, which ripening gradually last till late in June. The last of the main fruit trees to come into season is the *Eugenia jambolana*, Lam., whose oblong black berries have a very pleasant taste and are collected in enormous quantities when they ripen at the end of June.

With the breaking of the monsoon, numerous herbs spring up all over the forest. Many of them are eaten by the Chenchu and I have myself welcomed them as a substitute for vegetables, just as I learnt to appreciate *nalla gadda* in the place of potatoes. Among the herbs that are most frequently eaten are *dogal kura*, *pauli kura*, *banka kura*, *bodumal kura* and *sher kura*. Sometimes several varieties of herbs are mixed, but the Chenchus really prefer boiling and eating one kind at a time while they seldom have salt or spices to flavour such leaves.

During the later part of the rains these herbs and some varieties of roots form the backbone of the Chenchu's food and on days of heavy storms, when he cannot dig for roots, a few herbs collected near his house help to stave off hunger.

From the end of the rains till about January the forest provides little else but tubers and it is probably then that the menu of the Chenchu is most monotonous.

At certain times of the year the Chenchu is able to supplement his diet with the honey of wild bees, to which he is very partial. In all matters relating to food the Chenchu is a keen observer and he knows that the best and thickest honey comes from the *anduku chettu* (*Boswellia serrata*, Roxb.) and the *pachardu chettu* (*Albizzia procera*, Benth.), all other kinds being rather thin. The honey of the rock-bees, which are particularly abundant in the cliffs of the Kistna gorges, is taken towards the end of the hot season. Long ropes are used to scale the cliffs to reach the combs situated between the cracks, and these are secured to a tree on the top of the rock and watched over by one man, while another descends the rope with a honey basket tied to his hip and a bundle of smouldering leaves on the end of a long stick with which to smoke out the bees. When the bees have been dispersed the whole comb is cut from the rock and carried up the rope in the honey basket.

Trees on which honeycombs have been discovered are climbed in the usual way and the bees smoked out. When a comb lies in a hole in the trunk the Chenchu puts in his hand and takes the comb by pieces, but if it hangs on a branch he carves it off whole with his knife.

Arrows attached to strings are shot into combs that hang in inaccessible places, and the Chenchu sits on the ground with a basket between his knees, catching the honey that exudes from the spot where the wax has been pierced and flows down the string into his receptacle. A similar expedient is a spiked stick attached to a broad strand of fibre, which is hitched to the end of a long bamboo and thrust into the comb; in this case the honey flows down the broad strand of fibre.

Although honey is highly valued by the Chenchus, who say that they eat it together with the wax and any grubs which happen to be in the cells, it is only collected occasionally and in small quantities.

HUNTING AND FISHING.

Classifying the Chenchus of the present day as a 'tribe of primitive hunters and food collectors' may give rise to a misconception. For although the men, and especially the young men, often carry their bows and arrows, occasionally even setting out with the definite purpose of hunting, the chase contributes but meagrely to the general supply of food. During the six weeks I stayed in Boramacheruvu the men of the village killed only one deer, and this was shot with a gun. In spite of the innumerable peacocks and jungle fowl in the nearby thickets no other game was brought home.

The marksmanship of the Chenchus whom I saw using their bows and arrows was not remarkable, but judging from the stories old men tell of their youth and the fact that, despite many vicissitudes, the bow and arrow does still survive, it would appear that the Chenchus of past generations were more successful in the pursuit of game. Yet it is probable that Chenchu diet, like that of so many other primitive races of tropical regions, was always mainly vegetable, only occasionally bettered by the flesh of hunted animals.

Nowadays small game like hares, squirrels, monkeys and birds are shot with bows and arrows while guns are generally used for hunting sambhur and other deer, and, very exceptionally, bear, panther and tiger. The times are still remembered, however, when these larger animals too were hunted with bows and arrows; the adequacy of a Chenchu bow in bringing down sambhur and deer is demonstrated by the Chenchus of Madras Presidency, who are allowed to hunt freely as long as they use only bows and arrows and often bag large game with these weapons.

But on the Amrabad Plateau all men do not even possess bows, though those who do are frequently to be seen with them in hand when setting out to collect tubers or fruits. If they sight a squirrel or other small animal they creep up to it, approaching as near as possible before shooting. Should they score a hit they make a fire immediately, singe off the animal's fur, and then roast it whole in its skin over the fire. If a man is alone he will finish the whole animal himself, or he may eat the head and legs and take the rest home, but if there are several men together they will share the prize, however small. Chenchus spotting a Malabar squirrel in an isolated tree will often attempt its capture, even if they have no bows; they surround the tree and pelt the animal with stones, until it jumps from the tree in an attempt to escape, when the Chenchus will set on it and kill it with sticks.

Men in search of small game string their bows, which otherwise they carry unstrung, and creep noiselessly through the jungle with knees bent and cautious steps. They are careful

that no rustle of leaves or breaking of twigs betrays their approach and as they pass they turn up the leaves of giant creepers on the chance of spotting possible game concealed among the foliage. An animal sighted in the high branches or dense thicket they chase into the open by hurling sticks and stones until it comes within range of their arrows, or they will let fly the *kola*, an arrow with a blunt head, against the tree trunk, to scare the animal from its hiding place.

The customary behaviour connected with the chase of larger animals is difficult to observe, since the Chenchu, in attempting to evade the interference of forest officials, observe the greatest possible secrecy. However, I managed to establish enough confidence among certain men to induce them to tell me something of the methods which they would adopt in hunting larger game. They will, they said, watch an animal's habits and erect a small leaf screen where they find its spoor and where they know it is accustomed to pass. Here they will lie in wait, and will try to aim at a point just behind the shoulder. If they can get a shot at not more than fifteen yards the point of the arrow will come out of the other side of the animal.

Some idea of the technique of hunting with the gun as practised by the Chenchus south of the Kistna River about two generations ago can be gathered from an unspecified report quoted by E. Thurston.¹ 'The Chenchu is every bit as bad a shot as the average aboriginal. He rarely stalks, but when he does, he makes up by his skill in woodcraft for his inexpertness with his gun. He understands the importance of not giving the deer a slant of his wind, and if they catch a glimpse of him, he will stand motionless and black as the tree trunks around. The ambush by the salt lick or waterhole, however, is his favourite method of sport. Here, fortified with a supply of pungent smelling liquor, which he illicitly distils from mohua flower, he will lie night and day ruthlessly murdering sambhur, spotted deer, nilgai (*Bose laphus tragocamelus*), four-horned antelope (*Tetracerus quadricornis*). Tigers often stalk down and drink and roll in the pool, but the Chenchu dares not draw a bead on him. Perhaps the indifference of his shooting, of which he is conscious, deters him.'

It seems that larger animals are never carried intact to the village, but are cut up in the jungle where they have fallen. A lone hunter fetches the other men of the village and together they skin the animal and divide up the meat. They roast and eat as much as they are able on the spot, and after having gorged most of the animal, they take the remainder home to their wives and children. Meat cooked in the village is invariably boiled and not roasted, but nothing is added or eaten with the flesh,

¹ E. Thurston, Tribes and Castes of Southern India, Vol. II, pp. 35-36.

which is considered a great delicacy. Visitors in the village also receive a portion, but the man who shot the animal keeps one whole hind leg as well as the skin, which he dries and later uses as a mat. All that cannot be consumed in the village on that day is cut into strips and dried in the sun.

On the spot where the animal fell a small part of the meat is cut off, cooked and offered to Garelamaïsama, who is the main deity of the Chenchus and the one most frequently invoked; she is closely connected with hunting and according to Chenchu tradition, it was she who forbade their forefathers to kill female animals. This taboo is, however, no longer respected.

A man may only hunt in those lands to which he has a right, and even to-day the boundaries of the hunting and collecting grounds belonging to the various villages are nominally respected, but in the old times the least infringement of the boundaries gave rise to inter-village quarrels which sometimes led to bloodshed. When a wounded animal fled across the boundary into the hunting ground of another village, however, the hunter who wounded it had the right to take away the meat.

Bow and gun are not the only means of procuring flesh. Stones are used as missiles to kill squirrels and birds, and sticks to break the back of the 'udimi', a large arboreal lizard.¹ Some men also use dogs to smell out and catch these lizards, and other animals such as hares and the small grey squirrel, but once the prey is secured the Chenchu rushes forward and extracts it from the clutches of the dog, who is lucky if he receives the entrails of the animal. No offering is made to Garelamaïsama when animals are caught by dogs, and this seems to suggest that their use in hunting does not date back to very ancient times; a recently introduced method would naturally be unaccompanied by the old ritual. Neither in Thurston nor in any other account of the Chenchus are hunting dogs mentioned and I am therefore inclined to discount the statement made by some men that in the old times they tamed wild dogs and used them in similar fashion. The lizards, whose flesh is highly valued by the Chenchu, are hunted mainly in the rainy season, when they come out of their holes and are easy to catch.

Chenchus are not particular as to the freshness of their meat, and they do not despise the kills of tigers or other beasts of prey. Wild game eaten by the Chenchus includes sambhur, deer, goat, bear, hare, squirrel, wild cat, porcupine, peacock, jungle fowl, pigeon and practically any smaller bird which he is fortunate enough to capture, as well as the arboreal lizard. They do not eat tiger, panther or dog, nor will they touch snakes and frogs.

When the birds nest the boys climb the trees in search of eggs and young birds; birds, however small and even if they happen to be young birds of prey, are eaten, but the Chenchus

¹ The Indian Monitor (*Varanus bengalensis*, Daud.).

rarely attempt to shoot grown hawks, kites or vultures. They are also very partial to white ants, which are dug up in the cold weather and considered a great delicacy; when the white ants swarm in May and June they are caught in holes made in the ground and boiled or roasted, all parts being consumed including the wings.

The absence of any kind of trap or snare is a remarkable deficiency in the Chenchus' technique of securing game. This could hardly be set down to a degeneration of culture, which certainly could not have entirely eliminated such an easy and profitable means of obtaining food, and we have therefore to contend with the phenomenon of a primitive jungle tribe unfamiliar with trapping and snaring. The Chenchus have heard of such methods, and say that the plains people know how to trap birds, but that Chenchus on the plateau are ignorant of such devices.

Hunting as practised among the Chenchus of the Amrabad plateau to-day shows evident signs of disintegration. In search of the causes for its relegation to a secondary rôle in Chenchu economics, we are able to discern two factors which no doubt greatly precipitated its decline. The most decisive of these has undoubtedly been the restriction imposed by the Forest Authorities, who definitely discourage the shooting of the larger animals. A second factor may have been the introduction of the gun two or three generations ago; in consequence the Chenchu's skill in handling the bow and arrow rapidly deteriorated, though it was not long before he realized the difficulties of keeping the gun in order and of procuring the cash for the necessary powder. There are many indications that the Chenchus enjoyed a period of unnatural prosperity some sixty or seventy years ago. This boom, which seems to have occurred when they first began to sell large quantities of minor forest products, enabled them to purchase guns and other novel effects. Once in possession of such a powerful weapon, the Chenchu neglected his bow and even failed to instruct his sons in its art. Nowadays most guns have disappeared, for they have either been sold in times of stress, or fallen into disrepair, and the Chenchus never possess enough money to buy new ones or to have the old ones repaired. But the tradition of archery is broken and the present-day Chenchu is no longer as skilled a hunter as his ancestors.

There are only a few places where fish are to be found on the plateau and thus the opportunities for fishing are scarce. Many villages have no river or tank within the boundaries of their land and the people therefore never go fishing. Those Chenchus, however, who live close to valleys with perennial water occasionally try their luck in the pools, where water stagnates during the dry season. They take the corky bark of *Mundulea suberosa*, Benth., pound it, mix it with the red sand of white ant heaps and scatter it over the surface of the water. The poisonous

bark stupefies the fish, which are then easily caught with the hands. This method is only successful in shallow pools where there is no current.

The Chenchus have also learnt to catch fish with line and hook, both of which they buy in the plains. Rods are sometimes made of bamboo, and worms or pieces of fruit are used as bait, while the bent quill of a peacock feather acts as float. This manner of fishing is not very popular, however, probably on account of the great patience required in waiting for a bite.

Women never catch fish, though they will sit looking on, waiting for their share of the catch. Men sometimes go on fishing excursions and are away two or three days, camping in the jungle overnight. When fish are landed, they are rubbed on flat stones until the skin is free of the rough silvery scales; they are then cut open and the guts are removed. A fire is made by the water's edge and a part of the catch will be roasted on a spit and eaten at once, while the remainder is taken home, where it is cut into pieces and boiled with salt and chillies, if the latter are available. Fish are carried to the village strung by the head on twigs.

In contrast to the ritual after a successful hunt, when offerings are made to Garelamaisama, no ceremonial acts of any kind appear to be connected with either method of fishing, and this may be taken as an indication that the catching of fish does not represent a very ancient element in Chenchu culture.

DOMESTIC ANIMALS.

All Chenchus agree that their forefathers had no domesticated animals but the dog, and even to-day the greater part of the Chenchus on the plateau do not possess any other animals. In most villages, however, there are families who own buffaloes, cows or goats, and it appears from the life-stories of many old men and women that about thirty or forty years ago a considerably larger number of cattle was in the hands of the Chenchus. The Chenchus say that the decimation of their stock was effected by the epidemics brought in by the cattle of graziers which annually invade the forest. Although disease undoubtedly took a great toll, the decline is also largely due to the serious worsening of the Chenchu's economic situation, which leads them to sell many of the calves, so that year by year the number of their cattle dwindles instead of increasing. How the Chenchus originally acquired cattle is open to question, but it seems that at the time when they were able to sell large quantities of forest produce to traders in the plains they began to purchase various kinds of young stock.

The fact that a tribe of food collectors had, and still has, the desire and the aptitude to keep and breed these animals

is noteworthy and indicates that under certain circumstances, the transition from hunting and collecting to cattle-breeding is easier than from hunting and collecting to agriculture. No encouragement has been given to the acquisition of cattle, whereas definite and mostly unsuccessful attempts have been made to settle the Chenchus as cultivators. Nevertheless it is understandable that cattle-breeding came to be readily and spontaneously adopted by the Chenchus, for it is fully consistent and even favoured by their nomadic habits which on the other hand erect unsurmountable barriers in the ways of cultivation. During the dry season, when water becomes scarce on the plateau, cattle are easily driven to some place where a more ample supply is to be found, even should this entail a journey down into the Kistna valley.

Buffaloes are as a whole more favoured than oxen, for they are better fitted to withstand the climate of the plateau, and in most Chenchu villages there are at least three or four buffalo cows, as well as a few calves. Cattle are kept exclusively for milk and for the calves, which always realize a certain amount of grain or cash. The meat is not eaten, for with the acquisition of cattle, the Chenchu adopted the prejudice of the Hindu against eating beef. There is in his case no religious reason for this custom, which he probably took over without question when he first became acquainted with these animals. From the point of view of diet, however, it is a pity that he forgoes the meat of his domestic animals.

Owners of bulls lend them free of charge to other Chenchus for breeding purposes, but they sometimes hire them out to plains people against cash or in the liquidation of a debt.

At night buffaloes and cows are tethered to wooden posts in front of the houses, but where the village is built on rock the animals are fastened to long poles laid on the ground, which are well weighted down by boulders and piles of stones. The ropes are usually fastened to one of the forelegs, but nooses are used for young calves. The milking is done in the morning and this task generally falls to the lot of the owner's wife, though sometimes men milk too. The milker squats beside the cow, gripping a pot between the knees and milking with both hands. Calves are put to their mothers a few minutes before milking to encourage the yield, but then they are tied up some distance away. A small quantity of milk is, however, left in the udders, and before the cows are driven out to grass the calves are allowed to drink. At midday the calves are watered and fed with a little dried grass; as long as they are small they are kept tied up well within the village for fear of tiger and panther, but later they are allowed to graze with the herd, although even at this stage they often fall victim to beasts of prey. In the evening the cattle are driven home to the village, but they are rarely milked a second time.

The milk is used in various ways. Children are given a small quantity fresh, and the helpfulness between co-villagers generally prompts a man owning buffaloes or cows to give a little of his milk to all the small children of the group, without expecting anything in exchange. The larger part of the milk is used for making ghee, which is sold, only a small quantity being kept to smooth the hair after washing. The butter-milk is allowed to turn to curd, which the Chenchus like to eat mixed with various kinds of food, while the whey is drunk, a little salt being added whenever available.

At present goats are kept only by a few and it is difficult to understand why they are not more popular, for they serve the double purpose of providing milk and meat; Chenchus not only drink goat's milk but eat goat's flesh and use the skins as mats.

Chickens are even more rare. The flesh as well as the eggs are eaten, but poultry does not make the same appeal to the Chenchu as cattle.

In every Chenchu village there are always a number of dogs, which announce the arrival of any stranger with continual yelping and barking. In the old times, I was told, the Chenchus tamed wild dogs with red hair and black faces, which they caught in the jungle as puppies, but nowadays the majority of Chenchu dogs are of the same mongrel breed as those of the plains people.

Although domesticated animals had, with the possible exception of dogs, no place in Chenchu culture of olden days, they are now well established, and there can be little doubt that one of the possibilities for improvement in the Chenchu's economic situation lies in the extension and encouragement of cattle-breeding.

CULTIVATION.

In marked contrast to the Chenchu's aptitude for breeding cattle is his attitude towards cultivation. Attempts to introduce plough-cultivation on the upper plateau have failed almost completely. In Vatellapalli, a village where a few households of Waddars were settled with the idea of creating an example and encouraging the Chenchus to till the soil, only one man took to ploughing the land, but he is now too old to work and no one else, not even his own son, follows his example. A few other people of Vatellapalli did cultivate for a time, turning up the earth with hoes, but they also abandoned the attempt some time ago, and now there is no Chenchu in the village who works a field. In Koman Penta the *peddamanshi* grows *jarvar* (*Andropogon Sorghum*, Brot.) and *ragi* (*Eleusine Coracana*, Gaertn.); he does not do all the work himself, however, but has entered into a kind of partnership with a Mohammedan, who comes up from Amrabad, a village on the lower part of the plateau, every year and shares in the work as well as the yield. The *peddamanshi* complains that none of the younger men show

any inclination to work on the fields, and that they all prefer to go to the jungle for roots.

There exist no other cases of Jungle Chenchus embarking on plough-cultivation, but during the rains some Chenchus fence in small plots where they scratch the surface of the earth, removing the grass with broad flat wooden battons, and then plant grains of millet and Indian corn in holes made with their digging sticks. This work is usually executed by men, but sometimes widows too have their small plots. The seed millet is bought, but a little Indian corn is kept from one year to the other. The crops grown on these patches do not form any substantial addition to the Chenchu's food supply, but they are a welcome change after a diet of herbs and the tasteless, watery roots during the rains. Small quantities of tomatoes and chillies are sometimes grown round the houses. Fruit trees are practically never planted.

There is, however, a fenced-off patch near every village where tobacco is raised. The seeds, which are usually bought in the plains, are sown in small plots and the seedlings transplanted when they are a couple of inches high. The leaves are dried on stones and some people keep the seeds for the following year. It appears that not all men of a settlement plant tobacco every year, but only one or two, who supply the needs of the rest of the community as well as any relation in need, the task falling to another man in the following year. Like the people of the plains, the Chenchu smokes tobacco rolled up in the large pliable leaves of *Diospyros melanoxylon*, Roxb. which are called 'bidis'.

The present mentality of the Chenchu appears definitely ill-suited to agriculture on any considerable scale, and it would be misleading to expect a radical change in this situation within one or two generations. For even in the Kurnool District of Madras, where the Chenchus have been settled in large permanent villages and given all the necessary facilities, only comparatively few have taken to cultivation.

TRADE AND BARTER.

Before the Chenchus came in contact with races of higher developed culture, trade and barter were probably non-existent. But these times lie far back and for a considerable period the Chenchus must have depended on barter to obtain the knives axe-heads and iron for arrow-tips, which for generations have formed an indispensable part of their equipment. The commodities they tendered in exchange for these goods were undoubtedly forest produce, such as honey, wax and fruits, and sometimes perhaps even venison.

In recent years the Chenchus' demand for 'foreign' goods has increased. The discarding of the leaf-dress of their ancestors

has given rise to the need for clothes and with the adoption of a more settled mode of life, they have learnt to covet such household goods as pots, winnowing fans, and mill-stones, all of which must be bought in the plains. Moreover, they have grown to consider rice and millet as the most desirable form of food, and one which to-day they will go far out of their way to obtain.

While the ever-growing contact with outsiders which has followed the opening up of the forest has increased the Chenchus' demand for trade articles, it has proportionately decreased their ability to provide the necessary goods in exchange. For the exploitation of their land by the Forest Department and by contractors has deprived them of their former monopoly in forest produce, thereby curtailing their only source of income at a time when they stood most in need of produce to counter-balance the new developments. This probably explains how it is that every Chenchu will assert that his grandfather was more prosperous than he and had excellent opportunities of selling jungle products to plains people, who used to pay very high prices. There are still minor forest products which are sold by the Chenchu such as mohua flowers, *chironji* (the kernels of *Buchanania latifolia*), the fruits of *Terminalia chebula*, Retz. which gives the black *myrabolams*, honey, the aromatic resin of *Boswellia serrata*, Roxb., cast-off sambhur horns, and bamboo baskets. Unfortunately, he has, as a rule, no other market than the banyas of the villages on the edge of the plains and these take advantage of his simplicity and cheat him in the most unscrupulous manner.

All these forest products afford, however, but seasonal and spasmodic sources of income and it is only men owning cattle who run steady accounts with the banyas, for they are able to supply ghee during the greater part of the year and occasionally have calves for sale.

The goods which the Chenchu acquires with what he realizes on his collections of forest products can be divided into two groups: cloths, household goods, etc., and food. Cloths for himself and his wife and his children, although not plentiful, are a considerable drain on his resources and often involve him in debt. Many of the essential implements and household utensils must also be bought from a banya or a bazaar. Fortunately, the expenditure for axe-heads, knives, and the iron points for digging-sticks has only to be made once in a lifetime. Pots, however, do not last for ever and have often to be replaced.

Ultimately, there are the food-stuffs, which with the infiltration of plains ideas have to be purchased for certain occasions. At weddings it is now imperative to have rice, chillies, dhal and salt, which cost the bridegroom two or three rupees and unless the event falls within the mohua flower season he must spend at least two rupees on liquor. In the same way rice and spices are now required for the ceremonies following death and if


possible a woman is given rice or millet on the days after confinement.

Apart from these special occasions, for which such foods are now considered necessary, the desire to supplement his jungle diet with grain is ever present and men going to the plains to sell their produce almost invariably return with at least a small quantity of millet knotted in their cloths.

Labour is only an insignificant source of income. In the dry season and at the beginning of the rains the Chenchus near the cart tracks are occasionally recruited by the Forest Department for the demarcation of coups and the upkeep of nurseries. They seldom work for contractors except in collecting some of the auctioned minor forest produce.

CONCLUSIONS.

The Chenchus of the Amrabad plateau have retained the characteristics of primitive food collectors to a larger degree than most jungle tribes of Southern India, with whom they have racial and cultural affinities. The keeping of cattle by a number of men and the frail attempts at cultivation have not changed the essential features of their mode of living or their economic system. Yet fresh needs have arisen and there has set in a process of adaptation to the habits of the surrounding population. The Chenchus now wear clothes and use household utensils that are very much the same as those of the lower Telugu castes and they have learnt to find marketable goods to barter for these things. Growing contact with their neighbours has induced many of them to leave the jungle and settle in the villages of the plains. But those who to-day still live in the hills cling tenaciously to their old forest life and scorn the idea that they too might exchange it for a more settled existence. Their old social organization has remained intact and their economics are still what they have been since time immemorial—the economics of a tribe of primitive food-gatherers.



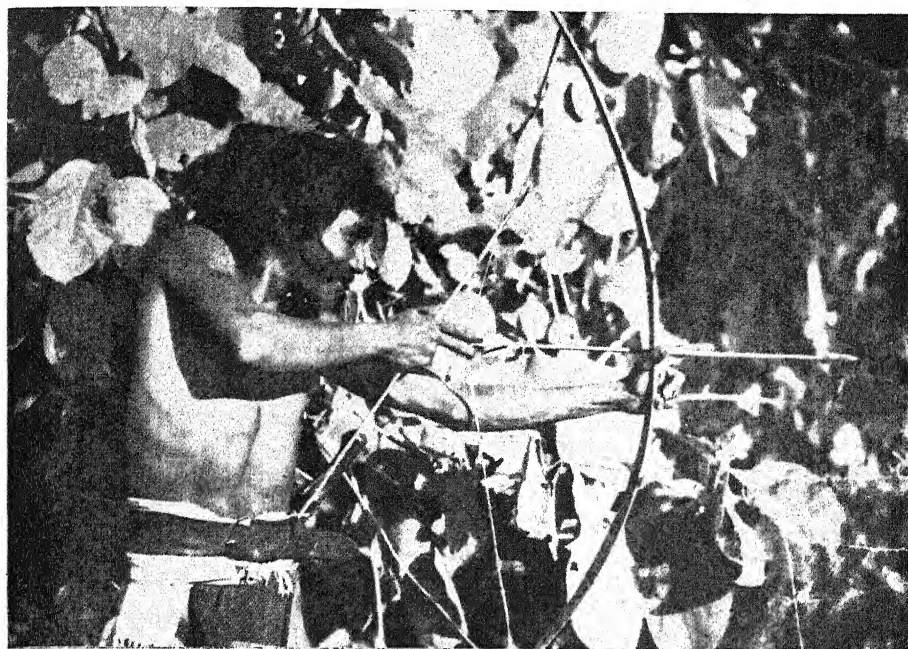


FIG. 1. Chenchu bowman.



FIG. 2. Chenchu women digging for edible roots.

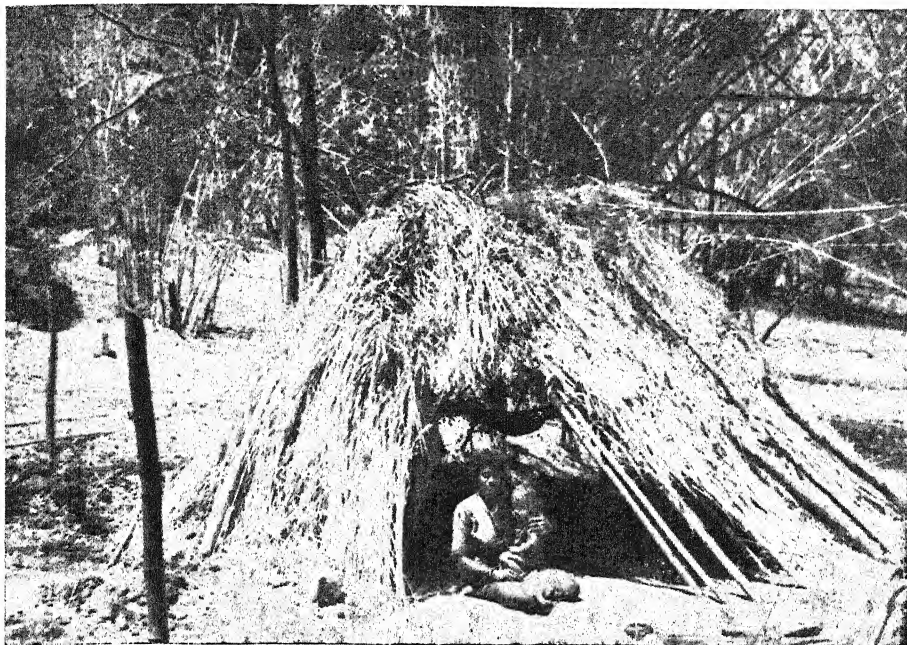


FIG. 3. Chenchu hut in a temporary settlement.



FIG. 4. Chenchu houses, one half completed, in a permanent village.

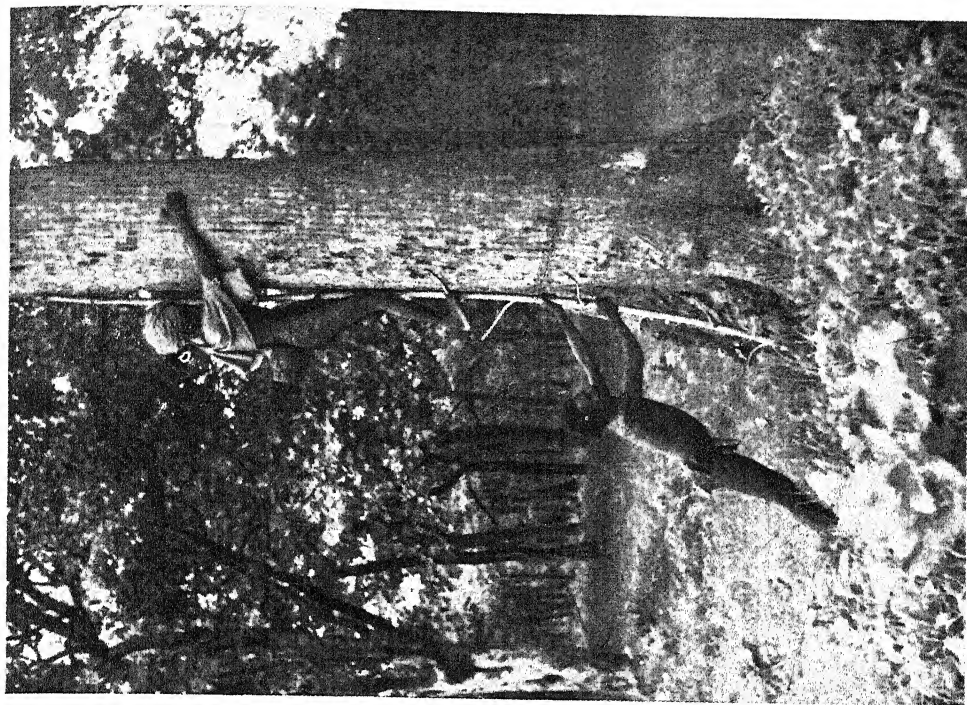


FIG. 6. Chenchus climbing a tree in search of honey.

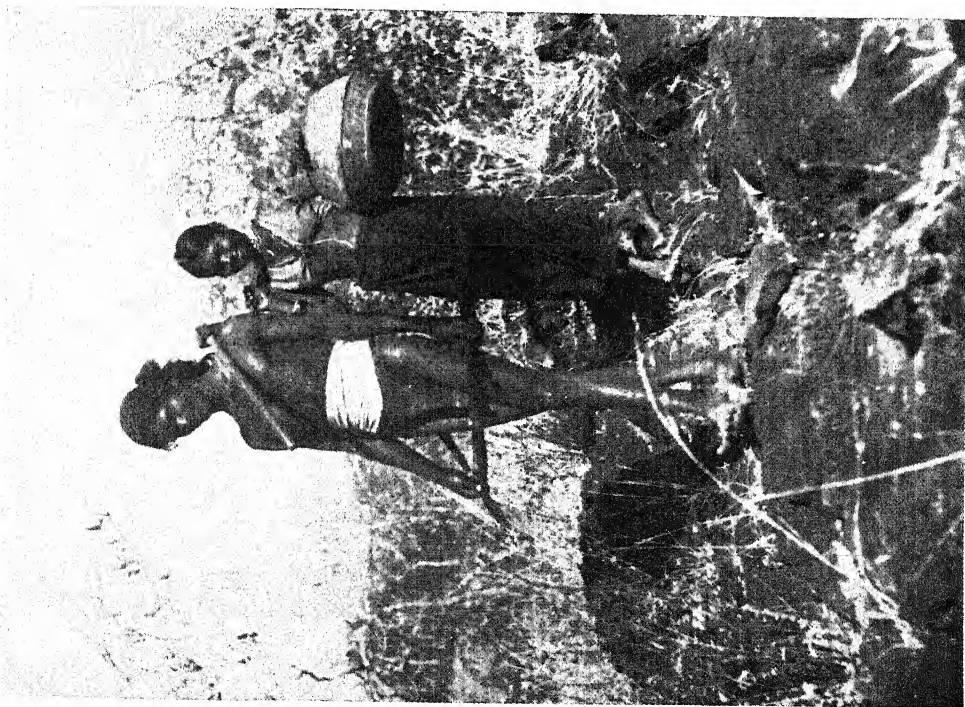


FIG. 5. Chenchu couple on their way to the jungle to collect food.

The Rock Engravings of the Middle Indus.¹

By M. E. and D. H. GORDON.

This article deals with a number of rock engravings which are situated in an area surrounding a stretch of the Middle Indus, some four or five miles in length, in the general vicinity of the confluence of the River Haro, which is some six miles down stream from the Attock Bridge.

THE SITES.

There are so far recorded, four main sites where these engravings are to be found, Mandori and Gandab on the West Bank, and Ghariala and a site a few hundred yards above the Haro confluence on the East Bank of the Indus. The Yale-Cambridge expedition which examined these sites in 1936 mentions engravings as being situated two miles from the broken down Choi bridge, along the bed of the river Haro in the direction of the river Indus, we hunted for these for a number of hours but could find no trace of them.

The best known of these sites is Mandori, here the engraved rocks are situated right down at the water's edge, and it is only in an exceptionally dry year, or one with deficient snow-fall in the mountains, that the whole of the rocks become high and dry. For the greater part of the year these rocks are for the most part completely submerged. There is a main group of rocks which bears a large number of engravings, which are also the best and most interesting of any yet found. The largest rock of this group has been badly fractured at some time subsequent to the period at which the engravings were made. In the vicinity there are some eight or nine other rocks bearing less interesting engravings, mostly situated up-stream from the main group for a distance of some three hundred yards. As is the case with all these sites, much time will be saved if one can get some intelligent villager to guide one to them. The village of Mandori, after which this site is named, is a good mile downstream of the site, and an extra two miles or more on a hot day can be most annoying.

¹ An article very much on the same lines was accepted by the German Year-book *Ipek* in August 1939, some months before the appearance of Mr. Cuthbert King's article in *Man* (83, 1940). As it is probable that this article was never published, a fresh one is now communicated to the Royal Asiatic Society of Bengal through the kind offices of Dr. B. S. Guha.

The site of Gandab is about four miles further down the river, the rocks visited by us however were some distance from the bank, being more than a mile from the present course. Here the engravings are not easily found as they are on smaller rocks scattered over a fairly wide area. Ponies are practically essential to scour this bit of country, which is at some distance from the main Nizampur road. Unfortunately, we visited this site in early June, as it was our one opportunity of going there under the auspices of Mr. Emerson, then A. C. Nowshera, who had ponies and guides laid on for us. Though the mid-day temperature was about 110° , we managed to cover a lot of ground and secure some good photographs.

On the East Bank, the main group of inscribed rocks is near the village of Ghariala some $4\frac{1}{2}$ miles from Campbellpur. The rocks are to be found on both sides of the road at the point where it starts to go steeply down to the broken Choi bridge, which once spanned the Haro. Adjacent on a bluff overlooking the river is the village of Ghariala. The other groups are the one visited by Mr. Cuthbert King on the Indus bank just up-stream of the confluence of the Haro, and the one reported in the bed of the Haro, which remained unlocated by us after a prolonged search.

THE TECHNIQUE OF THE ENGRAVINGS.

The engravings are all executed on the smooth flat surface of purplish black basalt boulders. The greater part of them are made by a series of peckings of the rock, probably with some form of metal tool. In some instances the pecking is much rougher than in others, the work at Mandori being on the whole better than that at the other sites, and that at Ghariala being for the most part rather crude and inferior.

The best pecked work can be seen in the round mirror-shaped objects on the top ridge of the most extensively engraved boulder in the main group at Mandori, here the closeness of the pecking has produced an almost uniform depressed surface. The engravings at Ghariala are for the most part linear and the pecking is often very crude and discontinuous. Another form of engraving is produced by a continuously chisled groove; these are not very common, but there is no reason to suppose they are not contemporary with the rest of the engravings.

Although these figures are sometimes spoken of as rock bruising, only a few specimens at Gandab (fig. 2) are true bruising. These are produced by the colour of the rock surface being changed by bruising it, the effect being to change the purplish black of the basalt boulder to a pale grey-brown. Little or nothing of this bruising can be felt by passing the finger tips over the surface of the rock, but, as can be seen from the unchalked illustration, the figures stand out quite plainly to

the eye, and have in fact the least crude outline of any, the shape of the battle axe for instance being most carefully depicted.

THE SUBJECT OF THE ENGRAVINGS.

The most important of the rocks show a mass of miscellaneous engravings, few if any bearing any relation to their neighbours, humans, animals, and abstractions being pecked out of the rock in aimless confusion.

The human figures are very crude and tend towards the extremes of simplification. Figures of men are quite common, for the most part they are disassociated with any other figure, occasionally they can be found riding a horse, an elephant or a camel. Groups, which are very infrequent, seem to be limited to two. One such group shows a man gripping another by the wrist with his left hand while he menaces him with a sword. Cuthbert King thinks that this may be commemorative of a treaty of fishing rights, but if they are striking hands on a bargain, it would be very out of place and against all experience of such customs for one of the participants to be waving a sword. Armed men are frequently equipped with sword, spear and a shield either round or rectangular, and in one instance (fig. 2) with a battle axe. Bows and arrows, so common in the rock paintings of Central India, are represented by only one example (fig. 4). Figures of women are scarce, but a gentleman with a peaked hat, waving a sword, seems to be 'making a pass' at a lady in a skirt and a similar peaked hat (fig. 17). Clothing is ill defined or absent in most cases, and though the contemporary people are certain to have worn a loin-cloth, the sex of the male figures is quite often strongly emphasized, as is also that of some of the animals.

There is a wide range of animal figures; oxen predominate followed by horses, elephants, two-humped camels, peacocks, elongated animals which may be meant to be crocodiles, and smaller animals which may be dogs. Some of the animal figures are as naturalistic as the proficiency of the artist would allow (figs. 9 and 10), but there are all degrees of stylization producing in some cases linear conventionalizations with no pretence of naturalism at all (figs. 12 and 13). Grouped with oxen one finds in two instances a man with something in his hands which may be a rope or a halter, with which he is about to secure the animal. It can be said with a considerable measure of certainty, that it will be unprofitable for anyone to follow up through these particular instances any hypothesis that may be put forward linking a not very well defined bull-cult in the Indus Cities of the Harappa period with the bull-cult of Crete, the section on the subject of dating which follows will adduce evidence which entirely precludes any such fancies.

Besides the human and animal figures there are a number of other signs, of which one of the most interesting is that found at Mandori, which shows a bullock cart viewed from above, there are three or four examples of this of which fig. 7 shows the most elaborate; here the bullocks are attached, and the wheels are disposed laterally so that they shall impress their roundness on the beholder.

The remaining designs are those abstractions which are usually termed symbols by anthropologists. Some of these are undoubtedly stylized humans (fig. 3), but the bulk of them are scribbles to which it is always tempting, but in reality quite futile, to assign a true meaning.

THE DATING OF THE ENGRAVINGS.

It will be as well to state straight away that no very high antiquity can be assigned to these engravings. Though there are in some instances varying techniques, and in others a considerable discrepancy in technical skill, there can be little doubt that the whole of these engravings are generally speaking contemporary. Some of the symbols such as concentric dotted circles, circles surrounding a cross, trident-shaped and other stylized human figures, are common in all periods and in many lands; the fact that it is possible to equate them with Bronze age or even Neolithic engravings in Europe has little real significance. The equipment of swords, shields and spears and the riding of horses and elephants precludes a very early date, but the whole matter is resolved by the fact that at Mandori there are two inscriptions in Kharoshti. These appear entirely to have escaped observation, which is not wholly to be wondered at, seeing that we photographed one of them without recognizing its existence; in fact, it was only on studying the photograph subsequently that it struck the eye. Having found one inscription we naturally made a close search for any others that might exist, and we finally discovered one, concealed by the fact that it was on the lower side of a projecting edge of rock.

The first inscription (fig. 15) is quite definitely of the same age as the strange group alongside it. This group shows a figure on the back of an elephant, supporting on each of his hands another figure, one male and the other female. The inscription appears to read as follows:—a-šo-ra-ti-re (te), and below śi. Kharoshti inscriptions are most tantalizing; they almost invariably give the impression that transliteration will be simple, but when one comes to do it, all manner of difficulties arise; one of the chief of these being the similarity between ra and ta, another is the fact that the scribe was not always very certain of his letters, and one gets a number of strange variants. Where one has a known dedicatory formula to help one, transliteration and translation even present no great diffi-

culty, but roughly executed proper names can be very puzzling. This scribe seems to bend his verticals; 'ti' cannot be any other letter, so the right hand or first letter is almost certainly 'a', in spite of the fact that he has apparently closed the loop.

The second inscription reads:—ta (ra)-ṣa-pa-la-sa and below a-ṣi. With the exception of the rather wavy topped ta or ra, this inscription is quite clear. It is suggested, not very confidently, that it indicates 'of Tashapala the Asi' or of the tribe of the Asii, a branch of the Yueh-chi. The closed form of 'sa' is an early rather than a later form of Kharoshti, and, on the general style, the early Saka period or about 50 B.C. is suggested for these inscriptions. If, as it appears, these inscriptions are immediately contemporary with at least some of the engravings, then a general dating of 200 B.C.-200 A.D. ought to cover the majority if not all of them.

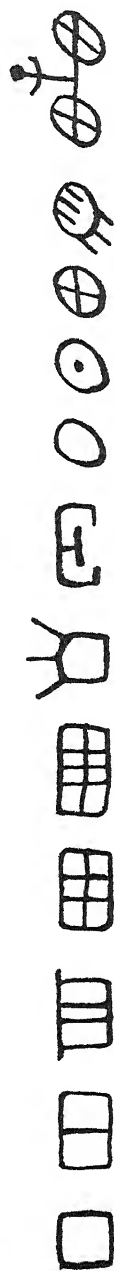
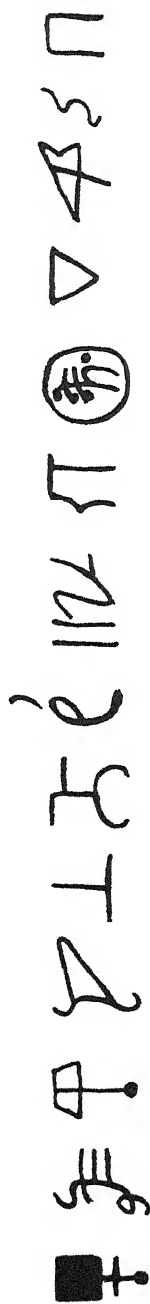
In the immediate vicinity of any of these rocks there are no surface finds of pottery which might help in dating the engravings, not that such pottery would necessarily be contemporary. Close outside Ghariala village pot fragments of the Buddhist period may be found, and close to a small village about one mile up-stream from the rocks of Mandori we found a terracotta figure of an ox, also of the Buddhist period. Such indications as these are seen to confirm a c. 200 B.C.-200 A.D. dating.

THE ROCK PAINTINGS OF CHARGUL.

The only objects which, in this general neighbourhood, are in any way comparable to these engravings are the rock paintings of Chargul. These rock paintings were brought to the notice of Lieut. C. Maxwell, R.E., who was investigating Buddhist remains in the vicinity of Shahbazgarhi, by Maizullah Khan, then Malik of Chargul. Lieut. Maxwell investigated the paintings in 1882 and published a complete set of drawings which are far from widely known. The paintings are for the most part in a rock shelter in the Western side of the Hill Doda overlooking the village of Chargul. To reach this one takes the Rustam road from Shahbazgarhi till one reaches the Hamzakot Canal Bungalow, just short of the 9th mile stone. Here one goes East up the Hamzakot Canal for about a mile, then on foot $1\frac{1}{2}$ miles due South to Chargul. We visited the site in 1938, and were fortunate enough to meet the present malik of the village, Azimullah Khan the son of Maizullah Khan. A party took us up to the shelter, which is unfortunately impossible of access except by means of ropes or scaffolding. Though we were used to taking chances in the rock shelters of the Mahadeo Hills we found after a trial that, without some such aids, it was impossible to see the paintings except through field glasses at a range of some thirty feet. There is however one group of paintings outside the shelter which are easily accessible. Of

these paintings General Alexander Cunningham wrote: 'I am afraid that the cave paintings are not writing at all, but only boyish sketches of animals—a sort of Afghan Noah's ark'. This is not very convincing; the whole number of pictographs are divided as follows:—Animals 73, of which twelve are horses with riders; there are eleven stylized human figures excluding the riders, and there are 57 symbols of which at least 25 have an alphabetiform character; in addition to these there are four pictographs which represent some sort of cart or chariot. The accompanying plate, No. 4, shows examples of all these types. The lower fringe of the hill Doda shows a profusion of remains of Buddhist stone walling, which however is not necessarily contemporary with the paintings.

It is suggested that all these pictographs and petroglyphs date from the close of the 1st millennium B.C. and the early centuries of the 1st millennium A.D., a dating which covers also a large number of the rock paintings found elsewhere in India. It is hoped that this note will serve to bring into greater prominence these interesting but on the whole little known objects.



First line shows two groups of consecutive alphabetiforms; second and third lines show alphabetiforms and square and circle symbols which are interspersed by animal signs, and a chariot symbol; the fourth line shows typical examples of human and animal figures.

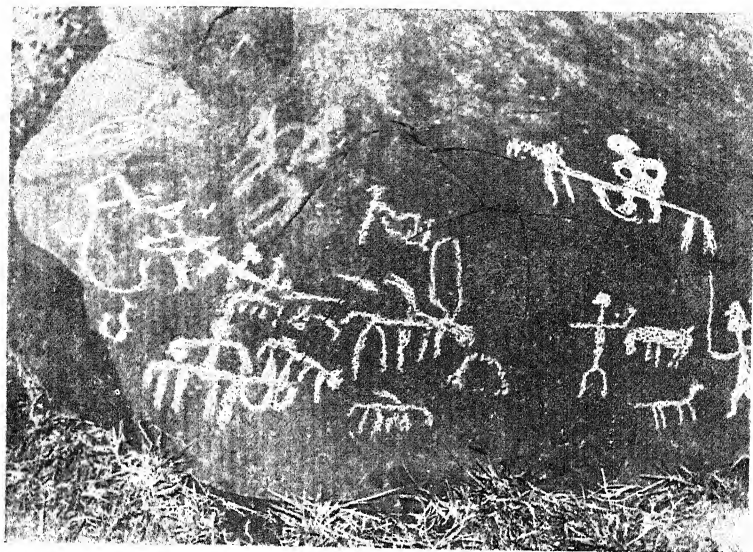


FIG. 1. Horsemen, figures and symbols, Gandab.



FIG. 2. Group of warriors, Gandab.

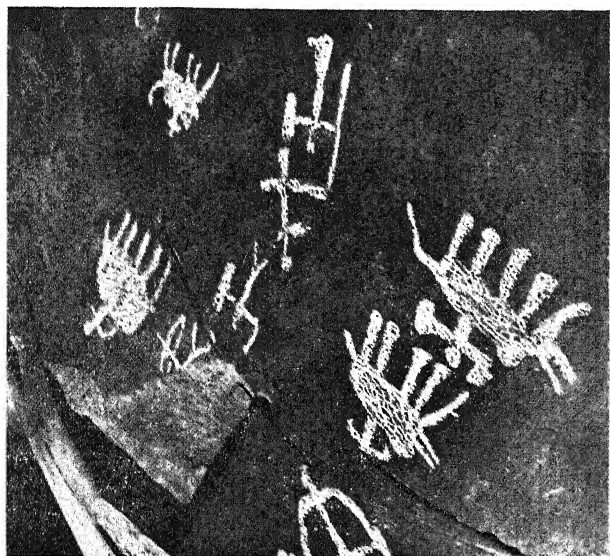


FIG. 4. Elephant riders, and warriors including an archer, Mandori.



FIG. 3. Figures and symbols, Ghariala.

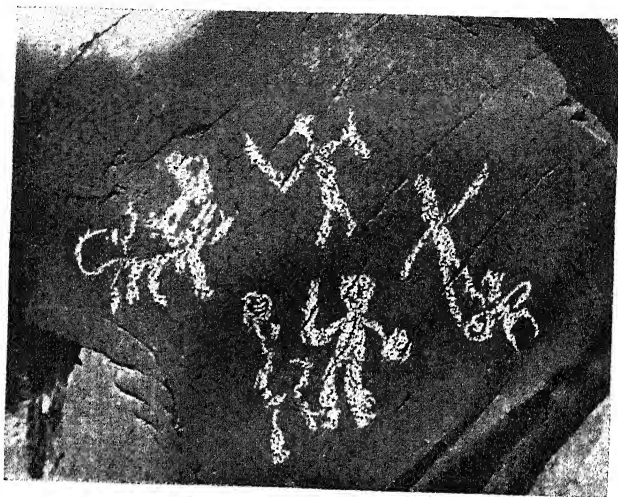


FIG. 5. Figure group, Gandab.

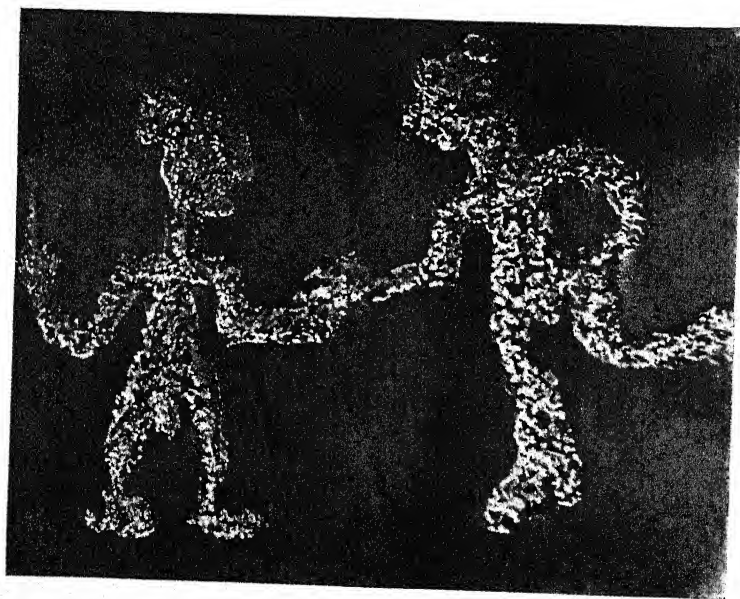


FIG. 6. Figure group, Mandori.

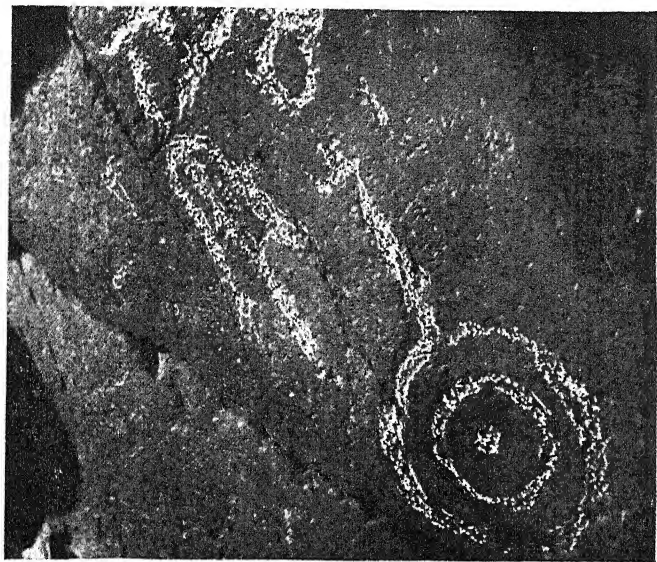


FIG. 8. Symbols, Ghariala.

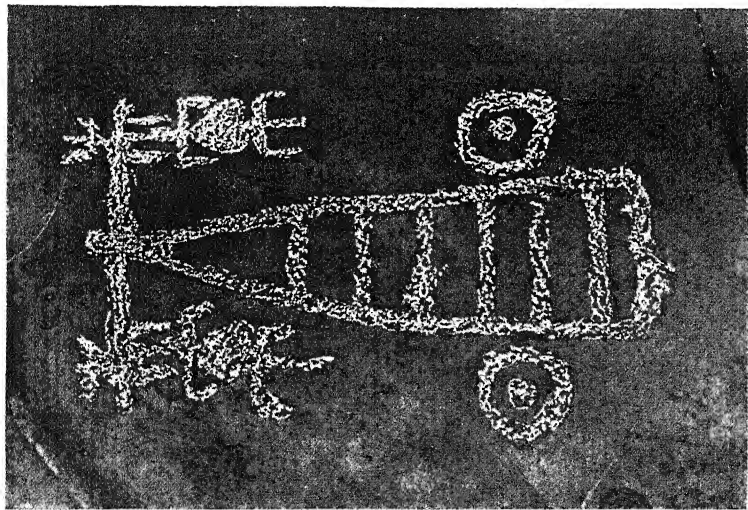


FIG. 7. Bullock cart, Mandori.

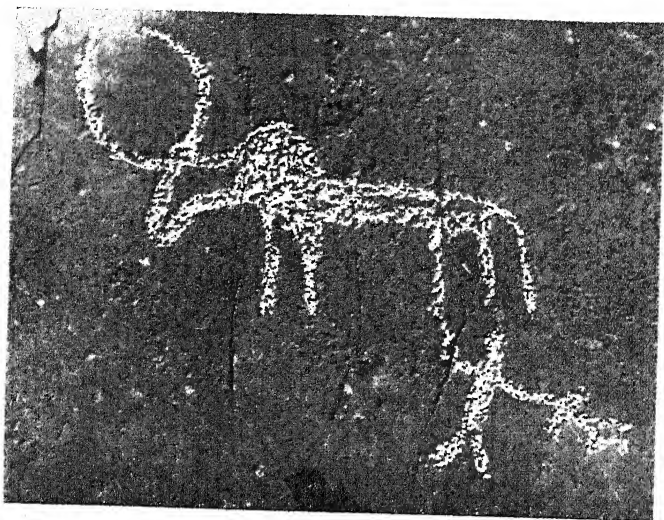


FIG. 9. Man and bull, Ghariala.

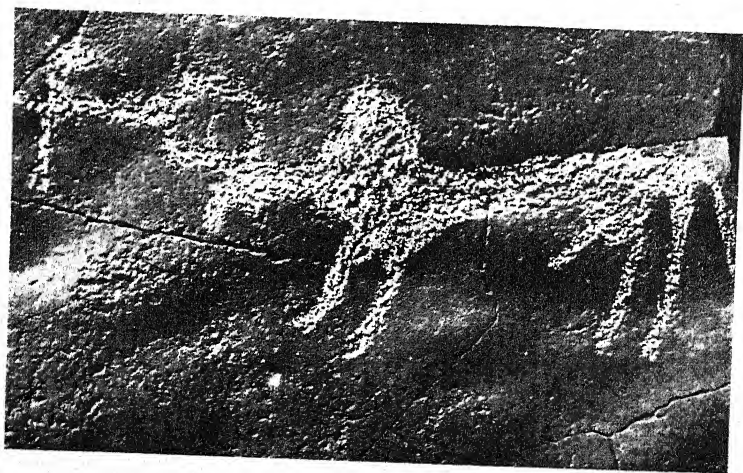


FIG. 10. Man and bull, Ghariala.

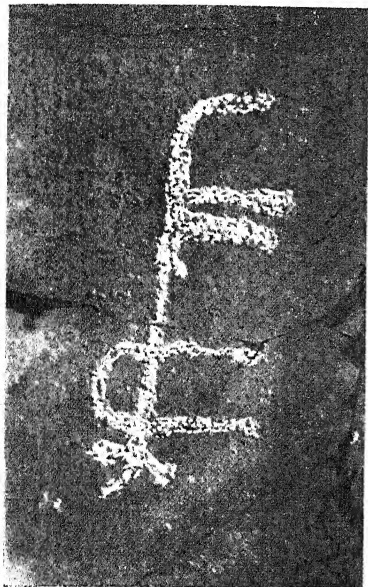


FIG. 13. Bull, Ghariala.

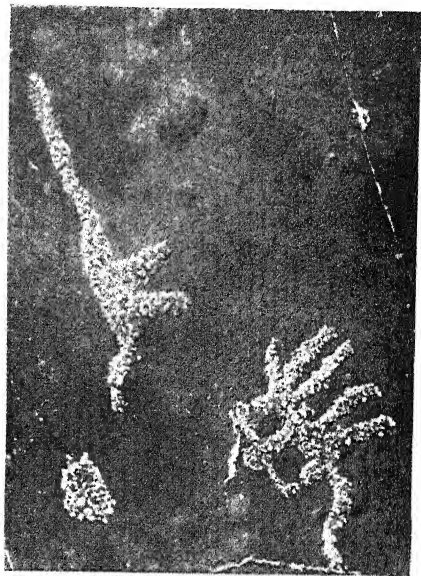


FIG. 14. Camel and peacock, Mandori.

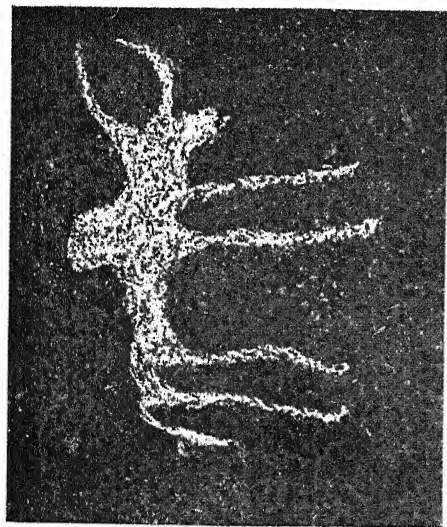


FIG. 11.

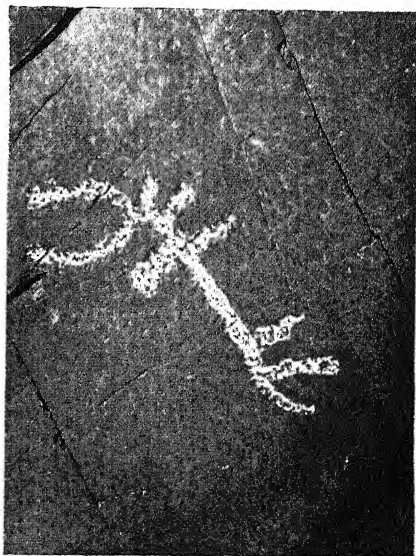


FIG. 11 (top) Ox, and FIG. 12 (bottom) Bull, Gandab.

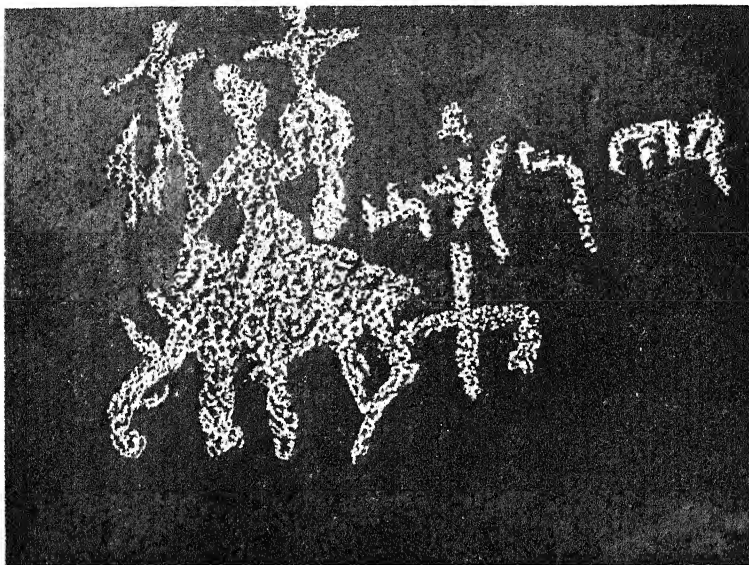


FIG. 15. Mythological figures and inscription, Mandori.

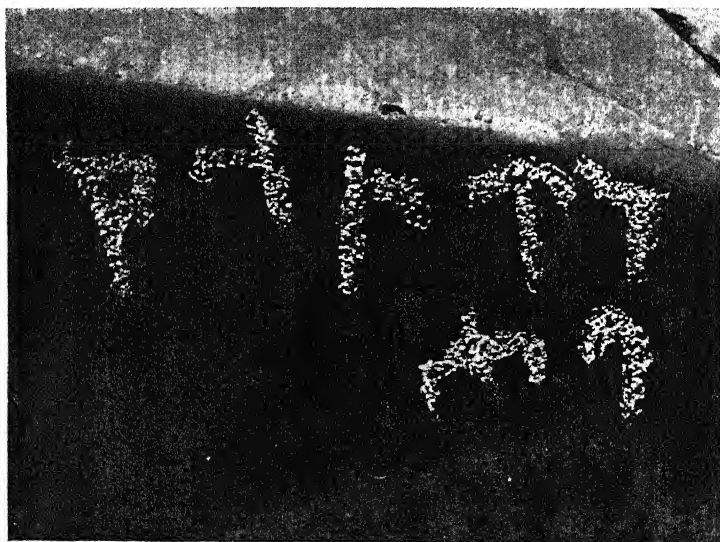


FIG. 16. Kharoshti inscription, Mandori.



Fig. 18. Figures and symbols, Mandori.

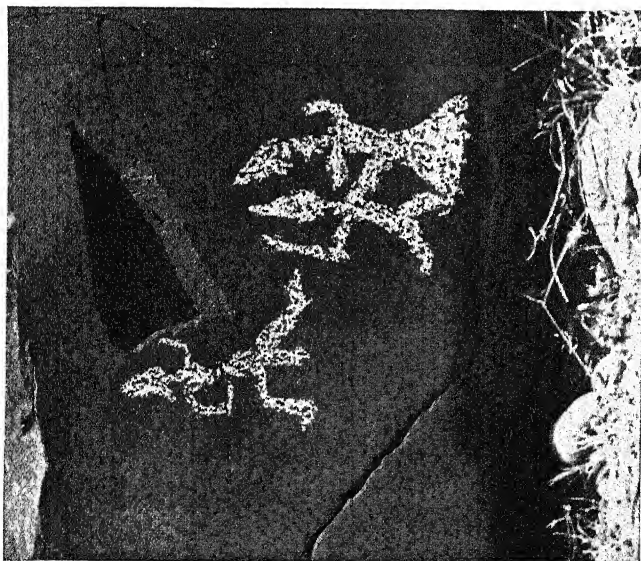
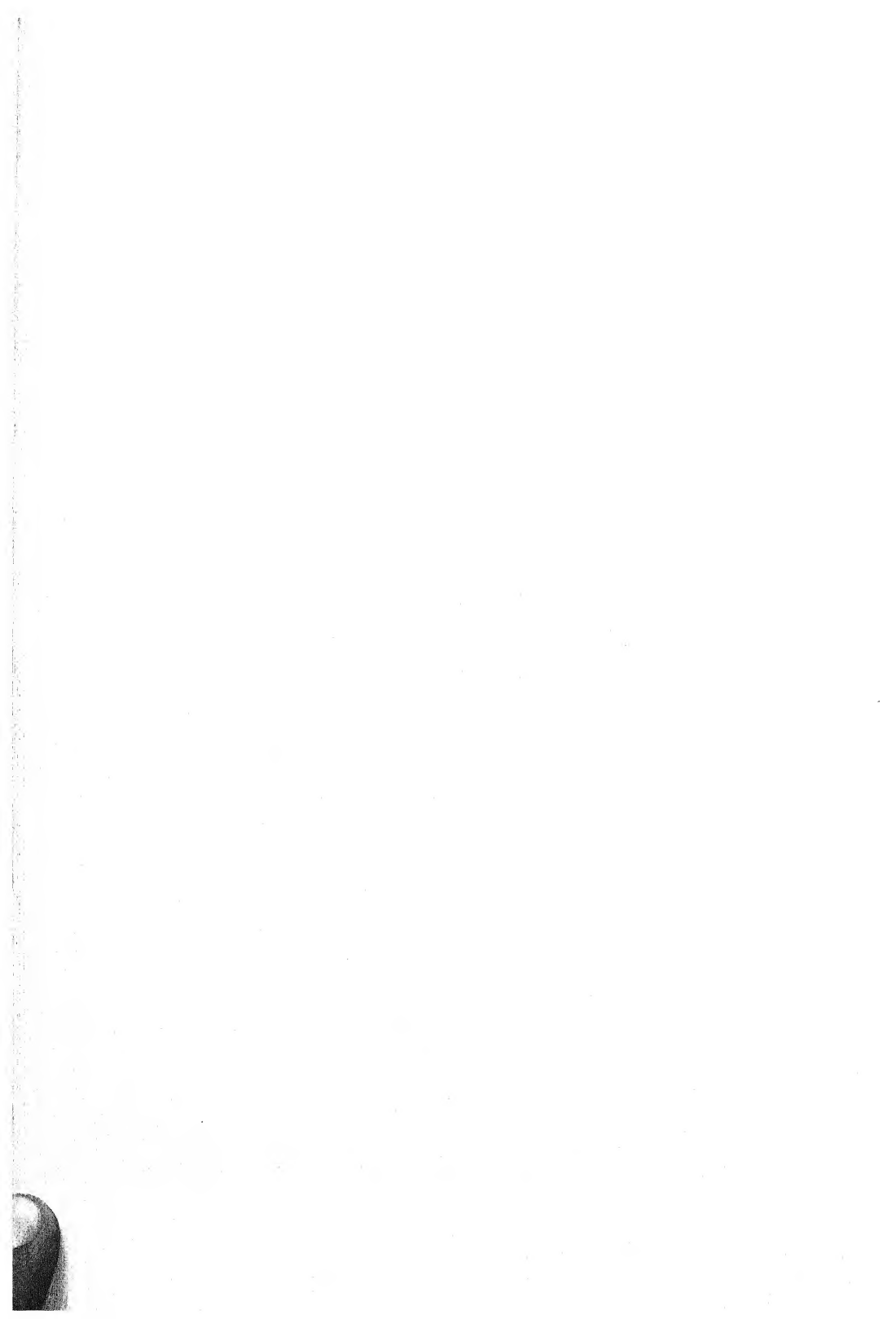


Fig. 17. Men and women, Gandab.



The Sohgaura Copper-plate Inscription.

By S. N. CHAKRAVARTI.

(Communicated by J. C. De.)

The copper-plate containing the inscription was discovered in the district of Gorakhpur, and presented to the Asiatic Society of Bengal by Dr. Hoey¹. The inscription was first edited by Bühler², and subsequently by Fleet³, Barua⁴ and Jayaswal⁵. But it remains still unsolved. I am dealing with the inscription from the original plate in the Royal Asiatic Society of Bengal, and from the illustrations in the *Journal of the Royal Asiatic Society of Great Britain and Ireland* (1907)—the Asiatic Society's photograph and Sir George Grierson's electrotype copy.

The inscription contains four lines of writing in Brāhmī character of the Mauryan period. The *alphabet* remarkably resembles that of the Mauryan Brāhmī Inscription of Mahāsthān.⁶ The peculiar *ma*'s on the Mahāsthān stone and those in our plate agree in shape. Again, the notched *ya* and the letter *sa* in a form resembling *sha*, which are used commonly in the Mahāsthān inscription, occur, though in rare instances, as in *Manavasiti*- (l. 1), *-yavani* (l. 3) and *vaya* (l. 4).

The *language* of our inscription is the same as the one used in the Mahāsthān inscription. It is the western variety of the *Prāchya* dialect in which *la* is substituted for *ra*, the nominative singular of *a*-stem ends in *e* instead of *o*, and the dental *sa* only is used. The eastern variety of the *Prāchya* dialect, however, is characterized by the use of the palatal *śa* only.

The Sohgaura plate was cast into several copies and is a circular notice issued by the *Council of Mahamatras of Sravasti* to the illustrious ministers, and is a document connected with famine relief measures.

TEXT.

- 1 Savatīyana Mahamatana sasane Manavasiti-ka-
- 2 da sili-māte (.) Usagame'va eta dava kothagalani
- 3 ti[la*]-yavani mathu-lacha-chamodamma-bhalakana va-
- 4 ya kayiyati(;) atiyāyikaya no gahimtavayo(.)

¹ The first photo-etching of the plate was published, with some remarks on it by Hoey, Vincent Smith and Hoernle, in the Society's Proceedings for 1894, pp. 84ff.

² *Vienna Ori. Journ.*, Vol. X, pp. 138ff., and *Ind. Ant.*, Vol. XXV, pp. 261ff.

³ *J.R.A.S.*, 1907, pp. 510ff.

⁴ *Ann. Bhand. Ori. Res. Ins.*, Vol. XI, pp. 32ff.

⁵ *Ep. Ind.*, Vol. XXII, pp. 1ff.

⁶ *Ibid.*, Vol. XXI, pp. 83ff.

COMMENTS ON THE TEXT.

- Line 1.* Jayaswal read *Savastīyāna*. But the third character is not a ligature. It is the very common *ta* with the angle just below the vertical line. *Sasane* (*sāsane*), in the Māgadhi nominative singular, is equivalent to the Sanskrit *śāsanam*. *Kaḍa* (*kaḍā*), in the ablative singular; *kaḍa* has the same meaning as the Sanskrit *kaṭaka*, 'camp'.
- Line 2.* *Sili* (*siri*) is equivalent to the Sanskrit *śrī* and to the Pāli *sirī*. *Māte* or *amāte*, the expected form being *amātiye*, corresponds to the Sanskrit *amātyān* and the Pāli *amacce*; *sili-māte*, 'to the illustrious ministers'. *Usagame* (*usāgame*) stands, as Jayaswal suggested, for *uss-āgame*, which corresponds to the Sanskrit *ushmā-game* and to the Pāli *usmā-game*. Bühler, Fleet, Barua and Jayaswal read *ete*. The *e-mātrā* to *t* is not traceable in Dr. Grierson's electrotype copy. In the Asiatic Society's photograph what looks like an *e-mātrā*, a slanting upward stroke to the left of the top end of *t*¹, is due to a defect in the surface. The *e*-vowel mark is expressed here and in the Mahāsthān inscription by a short horizontal stroke to the left of the top end of an *akshara*. *Eta* stands for *ete* (cf. *eta pi prajā trayo*... in Aśoka's Rock-edict I at Shahbazgarhi). Bühler, Fleet and Barua read *duve*, Jayaswal, *dave*. According to Jayaswal the word "seems to be connected with the technical term of the Maurya period *dravya* in connection with Government stores, e.g., *dravya-pāla* (*Arthasāstra*, Ch. 38)".
- Line 3.* *Tila-yavani* stands for *tila-yavāni*, 'sesamum and barley'. *Mathu* is equivalent to *madhu*, 'honey'; *lacha* (*lācha*) to *lāja*, 'parched grain'; *achamoda* to the Sanskrit *ajamoda* and to the Pāli *ajamoja*, 'aniseed'; *amma* to *amba*, 'a species of grain'. *Bhālākāna* (*bhālakāna*) is equivalent to the Sanskrit *bhārakāṇām* and to the Pāli *bhārakāṇam*.
- Line 4.* *Vaya*: the first letter is not *chh*. The indistinct vertical line within the circle is due to a defect in the surface. It is not a downward extension of the vertical part of the letter. The last letter is the notched *y*. *Vaya* (*vayam*) is equivalent to the Sanskrit *vyayam*, 'expense'. *Kayiyati* (*kayyiyati*) is clearly a denominative in *īya* from *kayya*, Sanskrit *kārya*, 'that which is to be done'; *Vaya kayiyati*,

¹ In later inscriptions the *e-mātrā* is marked by a slanting upward stroke appended to the left of the top line of an *akshara*.

'to be spent'. *Atiyāyikaya no gahintavayo*: the Mauryan Brāhmī Inscription of Mahāsthān, another document relating to famine relief measures, speaks of *atiyāyika* and *su-atiyāyika*. According to Bhandarkar it is *su-atiyāyika* which is probably understood at the end of the Sohgaura copper-plate. I would ascribe the dropping of *su* in the Sohgaura copper-plate to the carelessness of the scribe. Another instance is found in the dropping of *la* in the word *tila*. Bhandarkar translates the whole clause as follows: "nothing should be taken in excess (of plenty)". But I would translate it thus: 'for (times of) prosperity (this order) is not meant.' This sense appears to be supported by the symbolic devices, which I will discuss afterwards.

With the above introduction, I give my translation of the text as follows:—

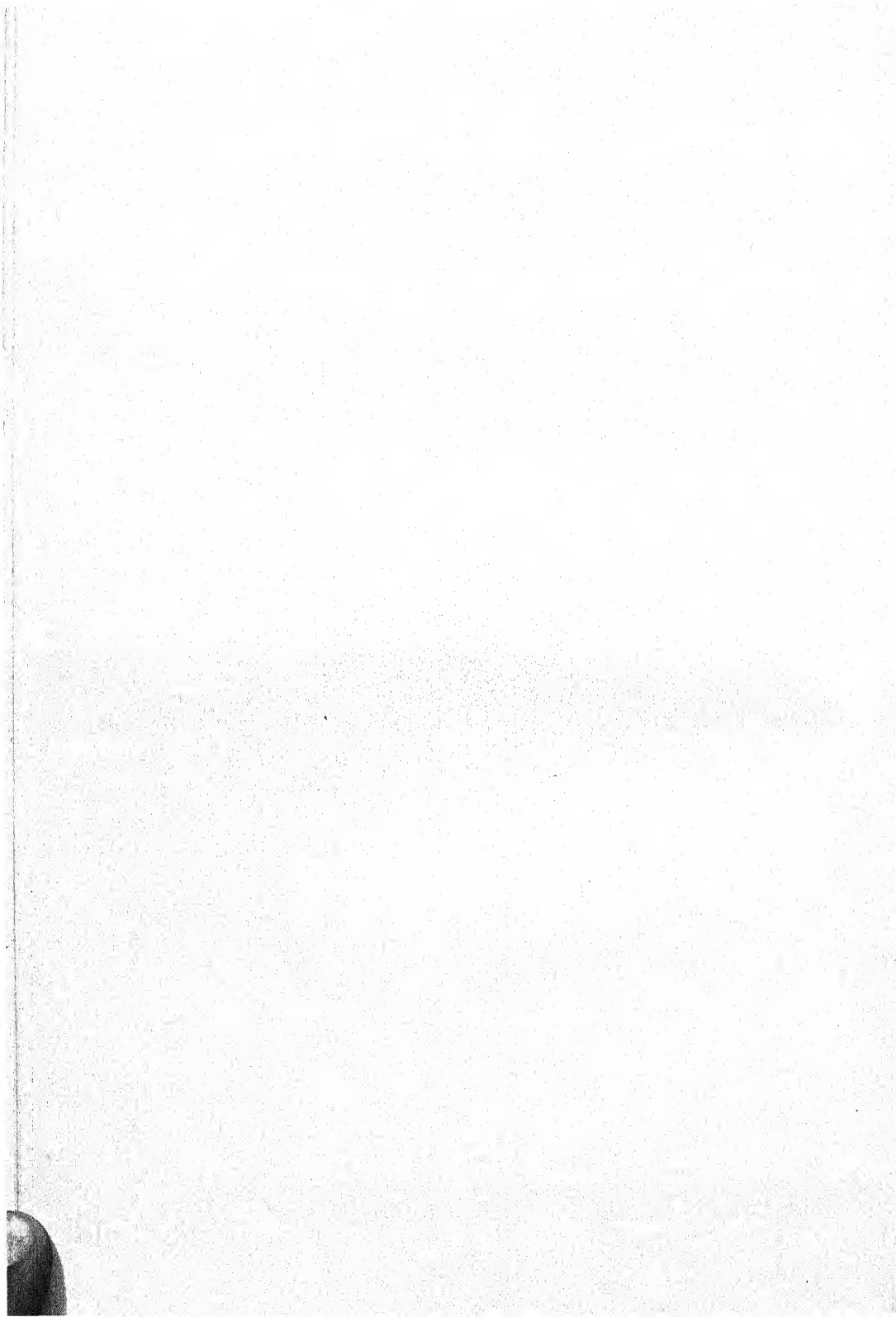
The order of the Mahāmātras of *Śrāvastī*, (issued) from the Manavasiti camp, to the illustrious ministers.

Only on the advent of drought, loads of sesamum and barley, honey, parched grain, aniseed, and amba grain in the 'dravya store houses', are to be spent; for (times of) prosperity (this order) is not meant.

SYMBOLS.

The upper face of the plate on which the symbolic devices are found may be divided into three fields. Beginning from the left, in the first field are a leafsome tree in railing, a store house and a ladle. The second field exhibits "a crescent (moon) on a hill-like combination and next to it a large Mo". In the third field are a leafless tree in railing and a store house larger than the one in the first field.

Jayaswal explains the devices in the second field as denoting "an imperial monogram for Chandra(gupta) M(aurya)": the crescent stands for *Chandra*; the hill-like combination, the upper loop of which is *g* and the lower loops *tt*, for *gutta*; and the large *Mo* for *Maurya*. He also explains the devices in the first and third fields. "The two trees," says he, "probably signify the drought stage from leafsome to leafless, and the houses for stores." But he has not explained the presence of the ladle in the first field and its absence in the third field. It is obvious that the devices in the first field denote the stage of plenty and those in the third field the drought stage. Thus the smaller store house with the ladle signifies restricted distribution of food and seeds in times of prosperity, while the larger store house without the ladle indicates unrestricted distribution of the same in times of adversity.



Time Indications in the Baudhāyana Śrauta Sūtra.

By P. C. SENGUPTA.

(Communicated by Prof. M. N. Saha.)

In the *Baudhāyana Śrauta Sūtra*¹, the rules for beginning the year-long sacrifices are stated in the following terms:—

“ते चतुरह्ने पुरस्तान्माघ्यै पौर्णमास्यै दीक्षन्ते तेषामष्टकायां क्रयः सम्पद्यते इति नु यदि समामविज्ञाय दीक्षन्ते । यद्यु वा एतस्यामेवैकाष्टकायां समां विजिज्ञासन्ते चतुरह्ण एव पुरस्तात् फाल्गुन्यै वा चैत्र्यै वा पौर्णमास्यै दीक्षन्ते । तेषामपरपक्षस्याष्टम्यां क्रयः संपद्यते । तेनैकाष्टकां न ह्रस्वत् कुर्वन्ति । तेषां पूर्वपक्षे सुत्या संपद्यते । पूर्वपक्षं मासा अभिसम्पद्यन्ते ।”

Baudhāyana Śrauta Sūtra, XVI, 13.

‘They consecrate themselves four days before the full-moon day of *Māgha*; thus their purchase of *soma* falls on the day of the last quarter (*Ekāṣṭakā*). This would be the rule if they consecrate themselves without knowing the (beginning of the) year. If, however, they want to know the (*i.e.* beginning of the) year on the day of the last quarter of *Māgha* (*Ekāṣṭakā*, *i.e.* when the first day of the year has already been passed), they should consecrate themselves four days before, either the full-moon day of *Phālguna* or the full-moon day of *Caitra*; their purchase of *soma* would then fall on the 8th day of the dark-half. By this they do not make the last quarter (*Ekāṣṭakā*) void. Their *utyā* (*i.e.* extraction of *soma* juice) falls in the first half (*i.e.* light half) of the month, and the (sacrificial) months begin in the first (or light) half.’

All this reads like a slightly modified extract from the *Taittirīya Samhitā* (VII, 4, 8) or from the *Tāndya Brāhmaṇa* (V, 9) which has been quoted and explained in my previous

¹ Edited by Caland, 1904–1913 A.D., published by the *Asiat. Soc. of Bengal*. The present paper modifies my interpretation of this rule of Baudhāyana and also the date arrived at from it, in the paper ‘Solstice Days in Vedic Literature’, published in the *JRASBL*, Vol. IV, 1938, page 429.

paper, 'Solstice Days in Vedic Literature'.¹ The author of the *Baudhāyana Śrauta Sūtra* here recommends the following of the former rules by the performers of year-long sacrifices. The rule of beginning these sacrifices four days before full-moon near the *Phalgunis*, is the oldest that can be traced in the *Brāhmanas*. The alternative rule for beginning these year-long sacrifices four days before the full-moon day of *Māgha*, was true for the time of the *Taittirīya Saṁhitā* or of the *Pāṇḍavas*, i.e. for about the time when the sun reached the winter solstice on the full-moon day of the Vedic standard month of *Māgha*. *Baudhāyana* seems to say that on the day of the last quarter of *Māgha*, the year-beginning or the winter-solstice day was already over in his time. Clearly then he does not mean the Vedic standard month of *Māgha* when giving his rule. His idea perhaps was that the sun reached the winter solstice on the earliest possible day of the full-moon of *Māgha*, and that the winter-solstice day was inevitably over on the last quarter following it. By a full-moon day of *Māgha*, he probably means a day like the 30th of January, 1934 A.D. Nowadays the winter-solstice day is the 22nd of December. This would show a precession of the solstice-day by 39 days, and at the rate of one day of precession in 74 years, it would indicate a time of about 953 B.C., about when, the day of the last quarter of the month of *Paruṣa*, and not of *Māgha*, could be near to the winter-solstice day. We shall not be wrong to assume that this *Śrauta Sūtra* speaks of a time of about 900 B.C.

This work does not say that the *Kṛttikās* (*Pleiades*) are first of the *nakṣatras*, as we find enumerated in the *Taittirīya Saṁhitā*.² Nor does it speak simultaneously of the full-moon days at the *Kṛttikās* and the *Maghās*³—a statement which is very significant as the *Pleiades* (η *Tauri*) and the star *Regulus* (*Maghā*) have a difference in longitude of very nearly 90°. We miss here statements like that of the *Kapīṣṭhala Kaṭha Saṁhitā*, (a) प्रजापतेर्वै एतच्छिरो यत्कृत्तिकाः⁴ (b) पूर्णमासे वामावस्थायां यजेत⁵ or of the *Maitrāyaṇī Saṁhitā*, (c) प्रजापतिर्वै आग्रयणो⁶ which mean, 'the *Kṛttikās* are the head of *Prajāpati* (year), that sacrifices are to be made on the full-moon or new-moon day and that *Prajāpati* is the day of the full-moon at the vernal equinox (*āgrayana*)'. All these statements mean a time about a hundred years before or after the year 2350 B.C. This *Śrauta Sūtra* has no statements of the type quoted above.

¹ JRASBL, Vol. IV, 1938, pp. 425-429.

² *Taittirīya Saṁhitā*, IV, 4, 10.

³ *Mahābhārata*, Vana, 84, 51-52.

⁴ and ⁵ *Kap. K. Saṁhitā*, VI, 6.

⁶ *Maitrāyaṇī Saṁhitā*, IV, 6, 4.

In another place (XII, 1; Caland's Edn., Vol. II, page 85), Baudhāyana lays down the following rule for beginning the *Rājasūya* sacrifices:—

राजसूयेन यक्ष्यमाणो भवति स पुरस्तात् फाल्गुन्यै वा चैत्र्यै वा
पौर्णमास्या अमावास्याेन हविषेष्टा दीक्षते ।

'When a prince is being religiously served with the *Rājasūya* sacrifice, he consecrates himself by making oblations of clarified butter, on the new-moon day which precedes the full-moon day either of *Phālguna* or of *Caitra*.'

It is difficult to see what season of the year is taken to begin on the new-moon which precedes the full-moon either of *Phālguna* or of *Caitra*. The former of these new-moons simply means the new moon of *Māgha*, which is but a repetition of an older tradition of the winter-solstice day as stated in the *Kauṣītaki Brāhmaṇa*¹ (XIX, 3). The *Mahābhārata* indicates, according to our interpretation, that Yudhiṣṭhira was consecrated for the *Aśvamedha* sacrifice on the full-moon day of *Caitra* of the year 2446 B.C. The Vedic standard month of *Māgha* as it came that year was similar to that of our time in 1932 A.D., and the full-moon day of *Caitra* of 2446 B.C. corresponded with the full-moon day of April 20, 1932 A.D. The new-moon day which preceded this full-moon happened on the 6th April, 1932 A.D. If the *Baudhāyana* rule indicates that spring began according to this recorded tradition, the date when this was true would become about 1400 B.C. If Baudhāyana means a year like 1927 A.D. on which the new-moon in question happened on April 2, the date would come out to have been about 1100 B.C. If again, it was a new-moon of the type of March 30, 1930 A.D., the date of the tradition would be about 886 B.C. In any case we do not get any clear indication of time from this reference. We shall, however, later on find the day for starting the *Rājasūya* sacrifice in the year 886 B.C. A more definite indication of the date of this *Śrauta Sūtra* is furnished by the:—

BAUDHĀYANA RULE FOR *Nakṣat্রেষ্ঠi* SACRIFICES.

The part of the work where it gives the time for beginning the *Nakṣat্রেষ্ঠi* sacrifices², runs as follows:—

अथातो नक्षत्रेष्टैर्याख्यास्यामोऽग्निर्वै अकामयतान्नादो देवानां
स्यामिति ता ब्राह्मणेन व्याख्याताः । सा या वैशाख्याः पौर्णमास्याः

¹ JRASBL, Vol. IV, 1938; page 422.

² *Baudhāyana Śrauta Sūtra*, XXVIII, 3-4.

पुरस्तादमावास्या भवति स सङ्गत् संवत्सरस्यापभरणौभिः संपद्यते
तस्यामारभेतेति ।

‘We now proceed to explain the rule for performing the *Nakṣatresthi* sacrifices. Agni wished, “I would be the partaker of food for the gods.” This has been set forth by the Brāhmaṇa (Tt. Br. III, 1, 4 *et seq.* as found by Caland). The full-moon which occurs near the *Viśākhās*, has its preceding new-moon once in the year in the *Bharanī* division, this new-moon is the day for starting the *Nakṣatresthi* sacrifices.’

A little later the rules run as follows:—

विशेषान् व्याख्यास्यामः । प्रजापतिः सवितेत्युपांशुः सर्पेभ्य आश्रेषाभ्य
आज्ये करम्भमिति सर्वे यवा भवन्ति ।

‘We shall now explain the special rules: Prajāpati, the sun becomes *Upāmsu* (of subdued light due to the starting of the rains) on getting at the *Aśleṣā* division. Hence all barley corns become *Karambha* (barley powder mixed with curd) which are to be mixed with clarified butter for oblations.’

Here evidently the sun is said to reach the vernal equinox on the new-moon which preceded the full-moon in the *Viśākhā* division or near the *Viśākhā* ‘junction’ star. Such a new-moon was of rare occurrence. Also the sun seemed to turn south at the beginning of the division *Aśleṣā*, and not at its middle. True it is that this *Śrauta Sūtra* says:—

माघमासे धनिष्ठाभिरुत्तरेणैति भानुमान् ।

अर्धाश्लेषस्य श्रावणस्य दक्षिणेनोपनिवर्त्तते ॥ इति काष्ठे भवतः ।

B. *Śrauta Sūtra*, XXVI, 29.

‘In the month of *Māgha* the sun on getting at the *Nakṣatra* division *Dhaniṣṭhā*, turns to the north and at the middle of the *Aśleṣā* division turns to the south in the month *Śrāvaṇa*. These are the two limits to the sun’s north-south motion.’

This is evidently borrowed from the *Vedāṅgas*. This position of the solstices was not true for the time of the *Baudhāyana Śrauta Sūtra*.

We understand that at the time indicated by *Nakṣatresthi* rules of Baudhāyana, the summer solstice was at the beginning of the *Aśleṣā* division, that the vernal equinox was consequently at the end of the first quarter of the *Bharanī* division, and winter solstice was at the middle of the *Śrāvaṇā* division.

Now the oldest division of the ecliptic began with the ecliptic position of β -Delphinis as the first point of the *Dhaniṣṭhā* division.

The longitude of β -*Delphinis* in 1935 A.D. = $315^{\circ} 26' 5''$
 Deduct half *nakṣatra* $6^{\circ} 40' 0''$,

the longitude of the middle of *Śravaṇā*
 division = $308^{\circ} 46' 5''$
 Again deduct $270^{\circ} 0' 0''$

Hence the longitude of the end of the 1st
 quarter of *Bharanī* division (1935) = $38^{\circ} 46' 5''$.

Now the longitude of the sun at Calcutta Mean Noon on April 30, 1938 A.D., a new-moon day, was = $39^{\circ} 14' 34''$.

This fairly agrees with the longitude of the last point of the 1st quarter of the *Bharanī* division obtained above.

Here a shifting of the equinoxes till 1938 A.D., of $39^{\circ} 14' 34''$, indicates a lapse of 2,828 years and the date arrived at becomes 891 B.C. If we want to get at a year near to this date and similar to 1938 A.D., that year becomes 886 B.C. or -885 A.D.

This date appears to be the time indicated by the *Nakṣat্রেṣṭi* rule of the *Baudhāyana Śrauta Sūtra*.

BAUDHĀYANA RULE FOR THE *Pañcaśārādīya* SACRIFICES.

In another place the *Baudhāyana Śrauta Sūtra* lays down the following rule for beginning the *Pañcaśārādīya* sacrifices. These lasted for 5 years and were begun with the advent of the Indian season of *Hemanta* or of the dews and ended with the Indian season of *Sarat* or autumn. Hence on the day for the beginning of this *Pañcaśārādīya* sacrifices, the desired celestial longitude of the sun was about 210° . The *Baudhāyana* rule runs as follows:—

पञ्चशारदीयेन यच्चमाखो भवति स उपकल्पयते सप्तदश
 निरुक्तान् वत्सतरान् एकहायनान् स पुरस्तान् मार्गशीर्षे पौर्णमास्या
 आमावास्येन हविषेष्टा सप्तदशमासतः पृथ्वीर्वत्सतरौरात्मते ।

(B. Ś. Sūtra, XVIII, 11.)

'When a person is being served by the five yearly sacrifice, he selects seventeen he-calves which are more than 8 days old and of not exceeding one year in age. He makes the sacrifice with oblations of clarified butter on the new-moon which precedes the full-moon at the star group *Mrgāśīras*¹ (i.e. λ , ϕ_1 , and ϕ_2 , *Orionis*) and secures seventeen she-calves of which the presiding deities are the *Maruts* or wind gods.'

¹ Cf. *Āpastamba Grhya Sūtra*, XIX, 8-3-2, which records a tradition of the beginning of *Hemanta* on the *Mrgāśīras* full-moon day which corresponds to a mean date of about 2000 B.C.

The practice was to release 17 he-calves and 17 she-calves for freely roaming about in the fields or forests in the 1st year, 17 she-calves in the 2nd year, 17 she-calves in the 3rd year and 17 she-calves in the fourth year were also set at liberty. It is not clear if in the fifth year also the same practice was continued. The day for beginning the sacrifice was of the new-moon preceding the full-moon at the *Mrgasiras* group.

Now in the year 1929 A.D., the full-moon near λ *Orionis* fell on December 16; and the preceding new-moon happened on December 1. We assume here that the sun's longitude increased by 60° in two lunations very nearly. Hence the sun reached the winter solstice on the day which corresponds with the new-moon on the 29th January, 1930 A.D.

On this day, i.e. January 29, 1930, at G.M.N. the sun's apparent longitude was = $308^\circ 53' 1''$,

Deduct $270^\circ 0' 0''$,

\therefore the remainder $38^\circ 53' 1''$ represents the shifting of the solstices till 1930 A.D. The date arrived at becomes — 885 A.D. which is the same as derived from the rule for beginning the *Nakṣatreṣṭi* sacrifices. The following back calculation for the year 887-886 B.C. shows the beginnings of the seasons and the days for the beginnings of these sacrifices.

Julian Calendar	Julian days	At G. M. Noon		Remarks
		Appt. Sun	Appt. Moon	
— 886 Nov. 1	1397751	$210^\circ 40'$	$212^\circ 36'$	<i>Hemanta</i> begins with this N. M. day. <i>Pañcaśāradya</i> to start.
— 886 Nov. 16	1397766	$225^\circ 58'$	$50^\circ 48'$	F. M. at λ <i>Orionis</i> about 10 hrs. before.
— 886 Dec. 30	1397810	$270^\circ 50'$	$266^\circ 1'$	N. M. one day after winter solstice at the middle of <i>Sravanā</i> division.
— 885 Feb. 27	1397869	$329^\circ 48'$	$321^\circ 34'$	N. M. $16\frac{1}{4}$ hrs. later. <i>Rājastūya</i> to start.
— 885 Mar. 29	1397899	$359^\circ 0'$	$357^\circ 57'$	N. M. near vernal equinox at the end of the 1st quarter of <i>Bharanī</i> . <i>Nakṣatreṣṭi</i> to start.
— 885 Apr. 13	1397914	$13^\circ 27'$	$202^\circ 23'$	F. M. in <i>Viśākhā</i> , 18 hrs. before.

The small discrepancies which the above calculations show with the Baudhāyana statements are negligible. These state-

ments of the *Śrauta Sūtra* are not and cannot be very accurate. It should be noted in this connection that for the year —886 A.D.

λ Orionis	had a celestial long. of about	..	43° 40'
α Libra	"	"	185° 5'
i Libra	"	"	191° 0'

α Libra and i Libra are the two stars in the *Viśākhā* division.

Again, in this year —886 A.D.,			
the longitude of the end of the 1st qr. of <i>Bharaṇī</i>	=	359° 39'	
" " " 1st pt. of the <i>Viśākhā</i> division	=	182° 59'	
" " " " " <i>Mṛgaśīras</i>	=	36° 19'	
" " " mid-point of the <i>Śravaṇā</i>	=	269° 39'	

Thus the year 887-86 B.C. appears to be the mean date indicated by the *Baudhāyana* rules for beginning the *Nakṣatreṣṭi*, the *Pañcaśārādīya* and the *Rājasiya* sacrifices. This date, however, is liable to being raised or lowered by 76 years or by even a greater luni-solar period.

We now take up the *Baudhāyana* rules for setting up fires by the householder. The rules in question state the suitable or auspicious days for the purpose and have nothing to do with the beginnings of the seasons. The auspicious days are the new-moon days at (1) *Kṛttikās*, (2) *Rohiṇīs*, (3) *Punarvasus*, (4) *P. Phalgunis*, (5) *U. Phalgunis* and (6) *Citrā*. A Brahmin is to set up his fires in spring, a Kṣatriya in summer, a Vaiśya in autumn and a car-maker in the rains.¹ In this connection it is said:—

(a) या वैशाखाः पौर्णमास्या उपरिष्टादामावास्या भवति सा सङ्घत् संवत्सरस्य रोहिण्या सम्यद्यते तस्यामादधौत ।

‘The new-moon which follows the full-moon in the *Viśākhā* division, once happens in a year with the moon in the *Rohiṇī* division, that is the day on which the fires are to be set up.’

This rule states when to get at the day of a new-moon in the *Rohiṇī Nakṣatra*. There is another rule given for settling when to get at a new-moon near the *Punarvasus* (*Castor* and *Pollux*).

(b) या व्याखाः पौर्णमास्याः पुरस्तादामावास्या भवति सा सङ्घत् संवत्सरस्य पुनर्वसुभ्यां संपद्यते तस्यामादधौतेति ।²

‘The new-moon which precedes the full-moon in the *Nakṣatra Āṣāḍhā* (here the *U. Āṣāḍhā*), once (i.e. on rare occasions) happens in a year with the moon near the *Punarvasus* (*Castor* and *Pollux*); the fires should be set up on this day.’

These are purely luni-solar-stellar phenomena which repeat roughly in 8, 11 or 19 years. The *Rohiṇī* and the *Punarvasu*

¹ *Baudhāyana S. Sūtra*, II, 12.

² *Ibid.*, III, I: this is also repeated in XXIV, 18.

new-moons answering to the above description happened in the year 884 B.C., as the following calculation will show:—

Year and date	Julian days	At G.M.N.		Remarks.
		Appt. Sun	Appt. Moon	
— 883 A.D. April 19	1398651	19° 41'	194° 27'	F. M. in <i>Viśākhā</i> Dn.
— 883 A.D. May 4	1398666	34° 1'	23° 48'	N. M. in <i>Bharanī</i> Dn. for setting up fires.
— 883 A.D. June 3	1398696	62° 34'	58° 45'	N. M. in <i>Punarvasu</i> Dn. for setting up fires.
— 883 A.D. June 17	1398710	75° 54'	253° 0'	F. M. in <i>U. Āṣādhā</i> Dn.

Viśākhā division = 182° 59' to 196° 19'

Punarvasu division = 62° 59' to 76° 19'

Long. of *Pollux* = 73° 14'

It is evident that such new-moons came in also in the year 895 B.C., i.e. 8 years before the date 887 B.C. arrived at before. The *Śatapatha Brāhmaṇa*¹ lays down the rule that fires should be set up, on the day of the new-moon with which the lunar *Vaiśākhā* ended, meaning of course the new-moon, either at the *Kṛttikā*s or the *Hyades* (*Rohiṇī*s). These rules for setting up fires by a householder have nothing to do with the beginning of any season of the year and do not indicate the date of the *Baudhāyana Sūtra*, nor of the *Śatapatha Brāhmaṇa*, nor of any other work of the kind.

We are thus led to conclude that the mean date for the *Baudhāyana* rules for sacrifices should be taken as the year 887-86 B.C.

One point more that we want to notice here is that the *Baudhāyana Śrauta Sūtra* mentions the name Pāṇini in the *Pravara* section 3 (Vol. III, page 418) and also the name Kaulāśva Yāska in XVI, 27. Whether these statements place the dates of the celebrated grammarian and the author of the Vedic lexicon, *Nirukta*, before the time of the *Baudhāyana Śrauta Sūtra* (900 B.C. nearly), is a matter that cannot be settled astronomically. True it is that the word 'Yavanāni' as found in Pāṇini means the written alphabet of the Ionian Greeks, but it would be far from rational to conclude that the Yavanas did not come to India before the times of Alexander or of Darius.

¹ *Śatapatha Brāhmaṇa*, XI, 1, 1, 7; cited by S. B. Dīkṣita in his भारतीय ज्योतिःशास्त्र, page 130 (1st. Edn.) योऽसौ वैशाखस्यामावास्या तस्यामादशौत.....आत्मन्येवेतत् प्रजायां पशुषु प्रतिनिष्ठति ।

Some Dates in the Pāla and Sena Records.

By R. C. MAJUMDAR.

It is well known that the chronology of the Pāla kings has been fixed by calculating the known reign-periods of kings with reference to certain fixed dates or events of approximately known date. As such the correct reading of the dates of the Pāla and early Sena kings, particularly of those which are last-known dates of kings, is of special importance. Recently I examined the dates of many such records, and I have great doubts whether some of them have been correctly read. Even where it is not possible to arrive at any definite reading, it is better that the uncertainty of reading should be clearly known to scholars than that definite theories should be based on it. With this object in view I propose to discuss a few of the dates in the hope that other scholars might be induced to re-examine them for themselves, instead of relying on older views, formed, in many cases, at a time when the value of numerical signs was not so well known.

I. NĀLANDĀ C.P. OF DEVAPĀLA—YEAR 39 (*Ep. Ind.*, XVII, p. 320 and Pl.).

The date was formerly read as 38¹ and is now accepted as 39. The second figure, however, looks more like 5 than 9, as will be evident from a comparison with the figure for 5 in 54 of the Ins. of Nārāyaṇapāla on the back of the Pārvatī Image². The figure in the Nālandā C.P. is different from 5 in the Hilsa Tara Image³ Ins., the slanting line at the top as well as the curve at the bottom being both more prolonged. But, as noted above, it resembles 5 in Nārāyaṇapāla's Ins., dated 54⁴, in both these respects, while it is altogether different from the figure 9 used in the Kurkihar Inss. of the year 9 of Devapāla and year 19

¹ H. Kuraishi.—*List of Ancient Monuments in Bihar and Orissa* (1931), p. 74.

² R. D. Banerji.—*Mediaeval Sculpture*, Pl. III(b).

³ *JBORS.*, X, 33.—The date is read as 35 but is really 25. This has already been pointed out in *JRASBL.*, IV, 390.

⁴ It may be noted that in the Indian Museum Image Ins. of Nārāyaṇapāla (*Palas of Bengal*, Pl. XXXI) the figure 5 resembles that of Hilsa. Thus the two forms of 5 occur in the Inss. of both Devapāla and Nārāyaṇapāla.

of Vigrahapāla¹, and the Indian Museum Ins. of Nārāyaṇapāla². The date of the Ins. should, therefore, be read as 35.

II. JAYANAGAR IMAGE INS. OF MADANAPĀLA—YEAR 19.

(Cunningham's *Archaeological Survey Reports*, Vol. III, Pl. XLV, No. 17.)

The second figure was read as 9 by Cunningham and this has been accepted by all³. It is almost certainly 4 as may be easily verified by a comparison with the figure 4 in the Pārvatī Image Ins. of Nārāyaṇapāla—year 54, referred to above, the Chandimau Ins. of the 42nd year of Rāmapāla⁴, and the Kamauli Plates of Vaidyadeva⁵.

It may be noted that the figure read as 9 differs from that in Nālandā C.P. and the figure for 9 used in Kurkihar Ins. and the Ins. of Nārāyaṇapāla referred to above. The date of the Ins. should therefore be read as 14.

III. RAJIBPUR SADĀŚIVA IMAGE INS. OF GOPĀLA III—YEAR 14.

(*Ann. Rep. A.S.I.*, 1936-7, p. 131, Pl. XXXV(C).)

The figure read as 4 is absolutely unlike the figure used for 4 in the Ins. of Nārāyaṇapāla or Rāmapāla referred to above. I do not know of any symbol like it being used for 4 in the Pāla records. As a matter of fact the letter does not resemble any known symbol for a numerical figure. Doubt, therefore, naturally arises whether it is any numerical figure at all. Late Mr. N. G. Majumdar, who edited this Ins., has sought to demolish all current theories about Gopāla's short reign on the basis of this record. It is, therefore, necessary to be sure about the reading of the date.

The letter in question consists of a vertical line with a short angular hook attached to the top at the right. It is unlike any letter or numerical figure known to me. It may be part of a letter of which the other part has not been engraved through mistake, or a *virāma* sign. As the few letters in the next line are effaced it is difficult to make any definite suggestion. But it should not be read as 4 unless similar figure with value of 4 is discovered. For all we know the date of the Ins. may be year 1.)

¹ I have consulted the facsimile of Kurkihar Image Inss. kindly supplied by Mr. A. Ghosh.

² *Pālas of Bengal*, pp. 61-62, Pl. XXXI.

³ Dr. Bhandarkar evidently felt some doubts about the correct reading of the date, as he put a query after it in his *List of Inscriptions* (No. 1640).

⁴ *Pālas of Bengal*, Pl. XXX (pp. 93-4).

⁵ *Ep. Ind.*, Vol. II, p. 347, Pl. III-A.

BARRACKPUR C.P. OF VIJAYASENA—YEAR 62.

(Ep. Ind., XV, 282, Pl.)

Late Mr. R. D. Banerji read the date first as *Sam* 37¹, then as *Sam* 31², and finally as 32³. Mr. D. C. Bhattacharya challenged the accuracy of the reading and suggested 61. He, however, observed that 'had the two figures after *Sam* been joined together, they would almost exactly resemble the figure 5 of the Belabo Ins. of Bhojavarman'. But as Mr. Banerji who examined the original plates twice, did not suspect a single figure, Mr. Bhattacharya concluded that the two figures must be separate. He then argued: 'The first figure being in the form of a single curve without any angle does not at all tally with any of the known figures representing 3 most of which show two distinct arcs forming an angle, besides the lower curve... the first figure quite regularly corresponds to the known figures of 6, only it has a slight bend at the top towards the left, almost exactly like the figure 6 inscribed in a metal image of Vajratārā and in a MS. Colophon'. The second figure, in his opinion, also corresponds better with the figure 1 of the Sarnath Ins. of Mahipāla than any of the known figures of 2⁴.

Unfortunately, the original plate being no longer available, we have to rely on the plate published along with Mr. Banerji's article in *Ep. Ind.* As Mr. Banerji himself observes, 'these were prepared from two enlargements from two indifferent negatives' (p. 278). They cannot, therefore, be very much relied upon. Besides, it would be obvious to anybody who examines the published plate that the tops of the two numerical figures are on a lower level than the rest of the line, clearly indicating that the upper portion of them has been effaced. It is thus quite likely, as Mr. Bhattacharya has suggested, that the two figures were joined and we have to read the date as 5. I quite appreciate Mr. Bhattacharya's objection that Mr. R. D. Banerji who examined the original plate did not detect it. But following the same line of argument one might say that Mr. Banerji would not have unhesitatingly read the first figure *always* as 3 if he did not find on the plate itself the upper part of the curve, or at least clear traces of it to justify his reading 3. As a matter of fact, what Mr. Bhattacharya describes as a slight bend at the top, appears to me to be a distinct trace of the curve. If the figure, even as it is, is compared with the figure for 6 in the Naihati C.P. of Vallālasena, it can hardly be read as 6. It is possible to read the figure as 2 or 3. As Mr. R. D. Banerji had the advantage of examining the original plate which others had

¹ *Pālas*, p. 105.² *Bāṅglār Itihās*, p. 292.³ *Ep. Ind.*, Vol. XV, p. 284.⁴ *Ind. Ant.*, 1922, p. 157.

not, it is safer to accept his reading until the plate may be examined afresh.

TWO IMADPUR IMAGE INSS. OF MAHĪPĀLA—YEAR 48.

These two identical Inss. supply a regnal year for Mahīpāla which is 17 or probably 27 years later than any date otherwise known¹. Hence this date has been an important factor in fixing the Pāla chronology. Unfortunately, we have to depend entirely on a footnote to an article by Dr. Hoernle so far as the reading of the date is concerned². No facsimile of the Inss. was ever published, and no one else appears ever to have examined it. The 't' of *Samvat* has been often read by Cunningham and others as numerical figure, and, as already noted above, the mistakes in reading dates have not been infrequent. In view of this it is extremely doubtful how far reliance may be placed on the very cursory reading of the date added in a footnote by Dr. Hoernle, unchecked by anybody else.

The images containing the Inss. were, according to Hoernle, found by Mr. Lincke at Imadpur, but in the latter's account³ of the ruins of that place he mentions images with Inss. which are altogether different. It is possible, however, that those were other images. But in that case the two images, noted by Hoernle, are not mentioned by Mr. Lincke in his account. In view of the importance of the Inss. an earnest effort should be made to trace these images.

¹ The date of a Kurkihār Image Ins. of Mahīpāla has been read as 31 (*JBORS.*, XXVI, 245). The first figure, however, looks more like 2 than 3.

² *Ind. Ant.*, XIV, p. 165, f.n. 17.

³ *Proc. A.S.B.*, 1881, p. 98.

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